

Casiquiare canal

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Coordinates: 3°8′17″N 65°52′49″W﻿ / ﻿3.13806°N 65.87999°W﻿ / 3.13806; -65.87999

The **Casiquiare river** is a distributary of the upper Orinoco flowing southward into the Rio Negro, in Venezuela, South America. As such, it forms a unique natural canal between the Orinoco and Amazon river systems. It is the largest river on the planet that links two major river systems, a so-called bifurcation. The area forms a water divide, more dramatically at regional flood stage. Another river that links two river basins is the Echimamish River in Canada.

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Discovery

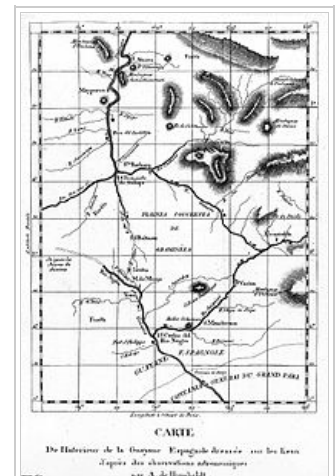
In 1744 a Jesuit priest named Father Roman, while ascending the Orinoco River, met some Portuguese slave-traders from the settlements on the Rio Negro. He accompanied them on their return, by way of the Casiquiare canal, and afterwards retraced his route to the Orinoco. Charles Marie de La Condamine, seven months later, was able to give to the *Académie française* an account of Father Roman's voyage, and thus confirm the existence of this waterway, first reported by Father Acuña in 1639.

But little credence was given to Father Roman's statement until it was verified, in 1756, by the Spanish Boundary-line Commission of Yturriaga and Solano. In 1800 German scientist Alexander von Humboldt and French botanist Aimé Bonpland explored the river. During a 1924–25 expedition, Alexander H. Rice, Jr. of Harvard University traveled up the Orinoco, traversed the Casiquiare canal, and descended the Rio Negro to the Amazon at Manaus. It was the first expedition to use aerial photography and shortwave radio for mapping of the region. In 1968 the Casiquiare was navigated by an SRN6 hovercraft during a National Geographic expedition.^[1]

Geography

The origin of the Casiquiare, at the River Orinoco, is 9 miles (14 km) below the mission of La Esmeralda at 3°8′18.5″N 65°52′42.5″W﻿ / ﻿3.13847°N 65.87708°W﻿ / 3.13847; -65.87708, and about 123 metres (404 ft) above sea level. Its mouth at the Rio Negro, an affluent of the Amazon River, is near the town of San Carlos and is 91 metres (299 ft) above sea level.

The general course is south-west, and its length, including windings, is about 200 miles (320 km). Its width, at its bifurcation with the Orinoco, is approximately 300 feet (90 m), with a current towards the Rio Negro of 0.75 miles per hour (0.3 m/s). However, as it gains in volume from the very numerous tributary streams, large and small, that it receives en route, its velocity increases, and in the wet season reaches 5 miles per hour (2.2 m/s), even 8 miles per hour (3.6 m/s) in certain stretches. It broadens considerably as it approaches its mouth, where it is about 1,750 ft wide (533 m). The volume of water the Casiquiare captures from the Orinoco is small in comparison to what it accumulates in its course.



Map of the Cassiquiare canal based on Alexander von Humboldt, 1799 observations.

In flood-time it is said to have a second connection with the Rio Negro by a branch, which it throws off to the westward, called the Itinivini, which leaves it at a point about 50 miles (80 km) above its mouth. In the dry season, it has shallows, and is obstructed by sandbanks, a few rapids and granite rocks. Its shores are densely wooded, and the soil more fertile than that along the Rio Negro. The general slope of the plains through which the canal runs is south-west, but those of the Rio Negro slope south-east.

The Casiquiare is not a sluggish canal on a flat tableland, but a great, rapid river which, if its upper waters had not found contact with the Orinoco, perhaps by cutting back, would belong entirely to the Negro branch of the Amazon.

To the west of the Casiquiare, there is a much shorter and easier portage between the Orinoco and Amazon basins, called the isthmus of Pimichin, which is reached by ascending the Terni branch of the Atabapo River, an affluent of the Orinoco. Although the Terni is somewhat obstructed, it is believed that it could easily be made navigable for small craft. The isthmus is 10 miles (16 km) across, with undulating ground, nowhere over 50 ft high (15 m), with swamps and marshes. It is much used for the transit of large canoes, which are hauled across it from the Terni river, and which reach the Rio Negro by the little stream called the Pimichin.

Hydrographic divide

The Casiquiare canal–Orinoco River hydrographic divide is a representation of the hydrographic water divide that delineates the separation between the Orinoco Basin and the Amazon Basin. (The Orinoco Basin flows west–north–northeast into the Caribbean; the Amazon Basin flows east into the western Atlantic in the extreme northeast of Brazil.)

Essentially the river divide is a west-flowing, upriver section of Venezuela's Orinoco River with an outflow to the south into the Amazon Basin. This named outflow is the Casiquiare canal, which, as it heads downstream (southerly), picks up speed and also accumulates water volume.

The greatest manifestation of the divide is during floods. During flood stage, the Casiquiare's main outflow point into the Rio Negro is supplemented by an overflow that is a second, and more minor, entry river bifurcation into the Rio Negro and upstream from its major, common low-water entry confluence with the Rio Negro. At flood, the river becomes an area flow source, far more than a narrow confined river.

The Casiquiare canal connects the upper Orinoco, 9 miles below the mission of Esmeraldas, with the Rio Negro affluent of the Amazon River near the town of San Carlos.

The simplest description (besides the entire area-floodplain) of the water divide is a "south-bank Orinoco River strip" at the exit point of the Orinoco, also the origin of the Casiquiare canal. However during the Orinoco's flood stage, that single, simply defined "origin of the canal" is turned into a region, and an entire strip along the southern bank of the Orinoco River.

See also

References

Sources

- This article incorporates text from a publication now in the public domain: Chisholm, Hugh, ed (1911). *Encyclopædia Britannica* (11th ed.). Cambridge University Press.
- VARESCHI, Volkmar. *Orinoco arriba. A través de Venezuela siguiendo a Humboldt*. Caracas: Ediciones Lectura, 1959

Notes

- ↑ "Graham Clarke" (<http://www.telegraph.co.uk/news/obituaries/1565257/Graham-Clarke.html>) . *The Daily Telegraph*. 2007-10-07. <http://www.telegraph.co.uk/news/obituaries/1565257/Graham-Clarke.html>. Retrieved 2008-07-14.

External links

- Alexander von Humboldt and the Casiquiare River (<http://members.aol.com/ChrisChrz/humboldt.html>)
- The point where the Casiquiare bifurcates from the Orinoco, on Google Maps (<http://maps.google.com/maps?f=q&hl=en&q=03%C2%B008%2718.45%22+N+65%C2%B052%2742.51%22+W&ie=UTF8&t=k&om=1&ll=3.138459,-65.878476&spn=0.018255,0.042572>)
- Wikimapia satellite image displaying locations of both the beginning (principio) and the end (desague) of the Casiquiare Canal. (<http://www.wikimapia.org/#y=2482133&x=-66423340&z=9&l=0&m=a&v=2>)

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