

The Rio Negro's Amazons

by Michel Braunstein

The source of the Rio Negro (Black River) is in Colombia, continuing its journey to Brazil, through the rich Amazonian forest. Here it converges with the Rio Solimões to form the Amazon. From afar, the Rio Negro appears to be black but from a closer look, it is actually dark brown. This dark color is caused by humic acid which forms due to the incomplete decomposition of the phenol contained in the vegetation of the sandy clearings.

Both rivers, the Rio Negro and the Solimões, meet south of Manaus, the capital of the Amazon. The Solimões source begins in Peru. Its waters are clearer (beige in color), and it is filled with sediment. The meeting point of the two rivers is a most impressive sight, as they do not blend together. They continue to run alongside one another for approximately forty kilometers (25 miles) before finally mixing.

This can be compared to a glass filled partially with water and partially with oil. They simply do not blend.

More surprisingly is that the fish species living in the respective rivers do not cross over onto the other side; they stop at the border.

This phenomenon, whereby the waters do not mix is due to several factors: a difference in pH (potential Hydrogen) levels. The Rio Solimões is basic, whereas the Rio Negro is acidic in nature. Large temperature differences, ranging from 28 to 35C (82-95F) in the Rio Negro River and a much cooler Rio Solimões with temperatures ranging from 20 to 22C (68-72F). The last significant difference is in the speed with which the rivers run. The Amazon is flowing at a speed of 8 km/hr (5 miles/hour) and the Rio Negro at 3 km/hr (1.9 mile/hour).

Inia geoffrensis or more commonly known as the pink dolphins, nicknamed locally as 'Boto', reside in the waters of the Rio Negro. Although still poorly known, this species is considered the most intelligent of the five species of freshwater dolphins. This dolphin has a melon shaped head, a thick and elongated back, a crest instead of the dorsal fin, disproportionately large

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Hunting pink dolphins. Nikon D300 – Nikon Fisheye 10.5 f7.1 1/80 ISO320 Aquatica A300 + 8" Dome Port Two Ikelite DS125 flashes



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Fishermen at work. Many of them are angry with the botos because of destroyed fishing nets
Nikon D300 – Nikkor 18-200VR @ 120mm f16 1/100 ISO200



Sailing on the Rio Negro
Nikon D300 – Nikkor 18-200VR @ 18mm f11 1/250 ISO200

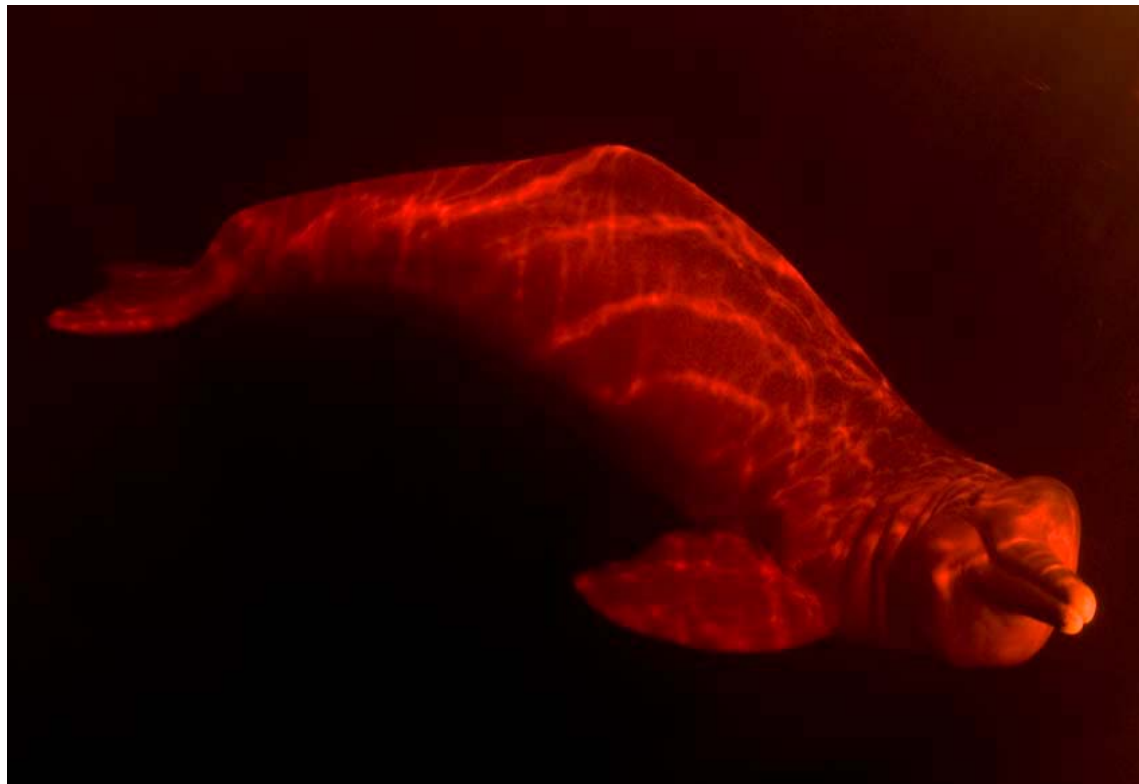


Feeding pink dolphins. Canon Powershot G10 f4 1/160 ISO80

ventral fins and tail, all of which making it less refined than the common dolphin. Yet when you see its agility and wild grace, it makes you think of the legendary Amazons.

The pink dolphin's flexibility is unique; its spine allows it to perform impossible contortions compared to other dolphins. Thanks to its flexible neck, it can turn its head at 180°C. The dolphin's sight is quite keen, despite its small eyes. Its very sharp high-frequency communication system allows it to move into the Rio Negro's dark waters and detect its prey. Like for all dolphins, sound waves are emitted through air bags under the respiratory openings, albeit the pink dolphins sound waves are amplified by the mass of fatty tissue found in its voluminous melon-shaped head. Some of the sounds it makes can be heard by humans but most are inaudible due to their high frequency.

During an expedition to the Amazon in 1992, The Cousteau Society studied the pink dolphin.



A crest instead of the usual dorsal fin from the common dolphin, on the boto's elongated back.

Nikon D300 – Nikon Fisheye 10.5 f5.6 1/80 ISO320 Aquatica A300 + 8" Dome Port Two Ikelite DS125 flashes



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Unable to isolate the animal in a pool, they had difficulty in analyzing its behavior.

The pink dolphin lives peacefully alongside another species, the *Sotalia fluviatilis*, or gray dolphin (gray dolphin enters the Amazon River from the sea). Pink dolphin have no natural predators, except man, and is a dreaded hunter. Piranhas fear them because they predate on them, as do the "Pirarucu", the famous giant fish, and the Cayman.

The pink dolphin lives in the Amazon basin. It can be found all the way up to Ecuador and Peru, where it is called "Bufeo colorado" (colored dolphin). It can also be found in the Orinoco basin, where the Rio Negro source starts (Colombia, Venezuela). You may often see it in areas where there is a great concentration of fish or where the rivers converge. I was fortunate to see the dolphins in the Rio Negro, near the Arian lodge, 60km from



The boto and its disproportionately large ventral fins and tail. Nikon D300 – Nikon Fisheye 10.5 f5.6 1/80 ISO320 Aquatica A300 + 8" Dome Port Two Ikelite DS125 flashes

Manaus. There is a place where they frequently visit and from which they can be observed. If you are lucky enough, you can even get near and swim with them.

This is a unique experience. It is impressive to see these huge of 2.5 to 3 meter long animals come out of the dark and move with amazing agility, especially when hunting. They are so fast in the water, making it difficult for photographers to immortalize them.

The origin of its color is not clear; it could be caused by the capillaries under its skin. Some of the boto's can also be pale blue and even albino.

The Pink Dolphin is very active in the local mythology; some Indian tribes of the Amazon worship it while others think of it as the devil and hunt it. The gray dolphin is usually considered as sacred. A traditional myth of the Amazon tells us that the pink dolphins emerge out of the water come

nightfall and transform into handsome young men and seduce the young women. They then resume their original shape and return to the River early in the morning.

A mere 20 years ago, the species was not threatened by extinction. However, its population is decreasing significantly due to intensive fishing, deforestation, forest fires, destruction of the habitat (dams, agriculture, construction), the extermination by fishermen angry because of destroyed fishing nets, river pollution due to raised mercury levels and fishing methods using explosives and overpopulation.

To date, no one knows exactly how many specimens still exist, but the dolphins of the Amazon are definitely important for the regional ecosystem. It is mandatory that we look after them because of their vital position at the heart of the planet's lung.

Michel Braunstein



Don't settle for 2nd best



Film - No Filter
No White Balance



Digital - No Filter
Manual WB



Magic Filter
Manual WB

Digital cameras have opened up new possibilities to underwater photographers. For available light photography manual white balance is an invaluable tool for restoring colours. But when you use it without a filter you are not making the most of the technique. You're doing all the hard work without reaping the full rewards.

These three photos are all taken of the same wreck in the Red Sea. The left hand image was taken on slide film, which rendered the scene completely blue. The middle image is taken with a digital SLR without a filter; using manual white balance. The white balance has brought out some of the colour of the wreck, but it has also sucked all the blue out of the water behind the wreck, making it almost grey. The right hand image is taken with the same digital camera and lens, but this time using an original Magic Filter. The filter attenuates blue light meaning that the colours of the wreck are brought out and it stands out from the background water, which is recorded as an accurate blue.

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