

Spotlight

THE PINK DOLPHINS
OF THE RIO NEGRO
**SPIRITS
OF THE RIVER**

The long snout and the toothy grin of the Boto or Pink dolphin *Inia geoffrensis* emerge from the tea-colored waters of the Rio Negro.

A close encounter with the legendary aquatic mammals of the Amazon whose mysterious existence has long been shrouded in legend



River waters of the Amazon basin are often tea- (or even Coca Cola-) colored due to the high amount of tannic acids originated by rotting vegetation, even when perfectly clear. This is the preferred habitat of the Pink dolphin or Boto *Inia geoffrensis*.

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PHOTOS BY MICHEL BRAUNSTEIN AND DAFNA BEN NUN

The Rio Negro is born 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 due to the humic acids which form 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 is born in Peru. Its waters are clearer (tan

in color), and it is rich 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 40 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.

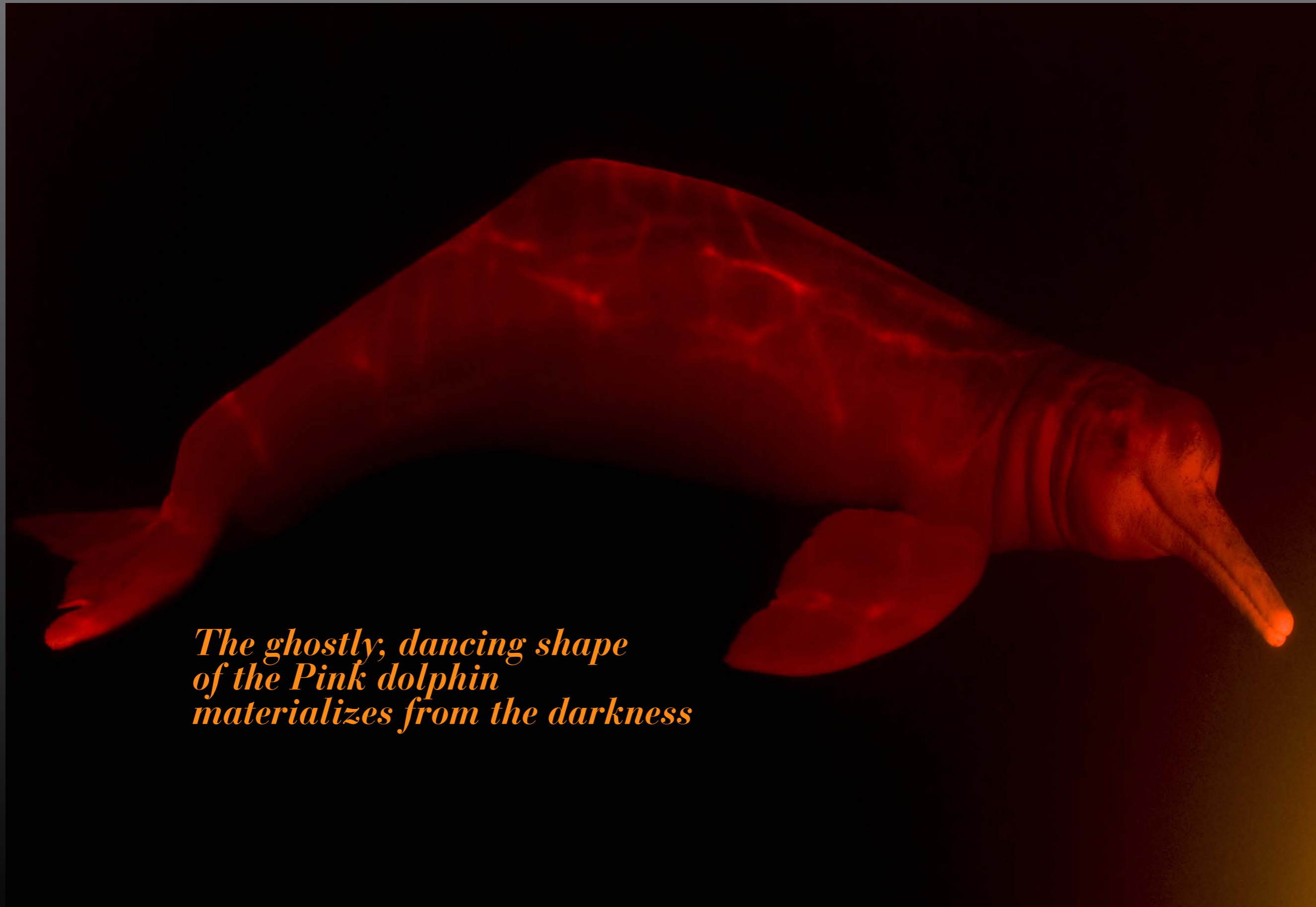
More surprising is that the fish species living in the respective rivers do not cross over onto the other side; they stop at the border.

This phenomenon, whereby the waters do not mix is due to several factors.

The Rio Solimões is basic, whereas the Rio Negro is acidic in nature. Large temperature differences, ranging from 28° to 35°C (82-95°F) in the Rio Negro River and a much cooler Rio Solimões with temperatures ranging from 20 to 22°C (68-72°F). 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 - more commonly known as the pink dolphin, nicknamed locally as "Boto" - reside in the waters of the Rio Negro. Although still poorly

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*The ghostly, dancing shape
of the Pink dolphin
materializes from the darkness*

Inia geoffrensis, commonly known as the Amazon river dolphin, is a freshwater river dolphin endemic to the Orinoco, Amazon and Araguaia/Tocantins River systems of Brazil, Peru, Ecuador, Colombia and Venezuela. It is listed as Endangered by the IUCN due to pollution, overfishing, excessive boat traffic and habitat loss.



Photo Dafna Ben Nun



Inia geoffrensis have unfused neck vertebrae, enabling them to turn their heads 180 degrees. This exceptional flexibility is very useful in navigating through the flooded forests. They possess long beaks which contain 24 to 34 conical and molar-type teeth on each side of the jaws.

known, this species is considered the most intelligent of the five species of freshwater dolphin. This dolphin has a melon shaped head, a thick and elongated back, a crest in place of its dorsal fin and large pectoral fins and tail, all of which make it less streamlined than the common dolphin. Yet, when you see its agility and wild grace, it makes you think of the legendary Amazons. The origin of its color is not clear; it could be caused by the capillaries under its skin. Some Botos can also be pale blue and even albino. 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°. 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. As with all dolphins, sound waves are emitted through air bags under the respiratory openings, although the pink dolphin's sound waves are amplified by the mass of fatty tissue found in its voluminous melon-shaped head. If some of the sounds it makes can be heard by humans, most are inaudible due to their high frequency. During an expedition to the Amazon in 1992, the Cousteau Society studied this species - unable to isolate the animal in a pool,

they had difficulty in analyzing its behavior. The pink dolphin lives peacefully alongside another species, *Sotalia fluviatilis*, or Gray dolphin, entering the Amazon River from the ocean. Pink dolphins have no natural predators, except man, and it is a dreaded hunter. It feeds on catfish, various crustaceans, and other fish. The Pink dolphin lives in the Amazon basin. It can be found all the way up to Ecuador and Peru, where it is called "Bufe colorado" (colored dolphin). It can also be found in the Orinoco basin. It is often seen 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

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*The Amazon river
dolphin is the largest
cetacean to spend most of
its life in freshwater;
it can grow larger
than a human.*





The Amazon river dolphin is abundant in lowland rivers with extensive floodplains. During the rainy season, these rivers flood large areas of forests along their banks. The Amazon river dolphin specializes in hunting in these habitats, taking advantage of its unusually flexible neck and spinal cord to maneuver among the underwater tree trunks, and using its long snout to extract prey fish from hollow logs and thickets of submerged vegetation.

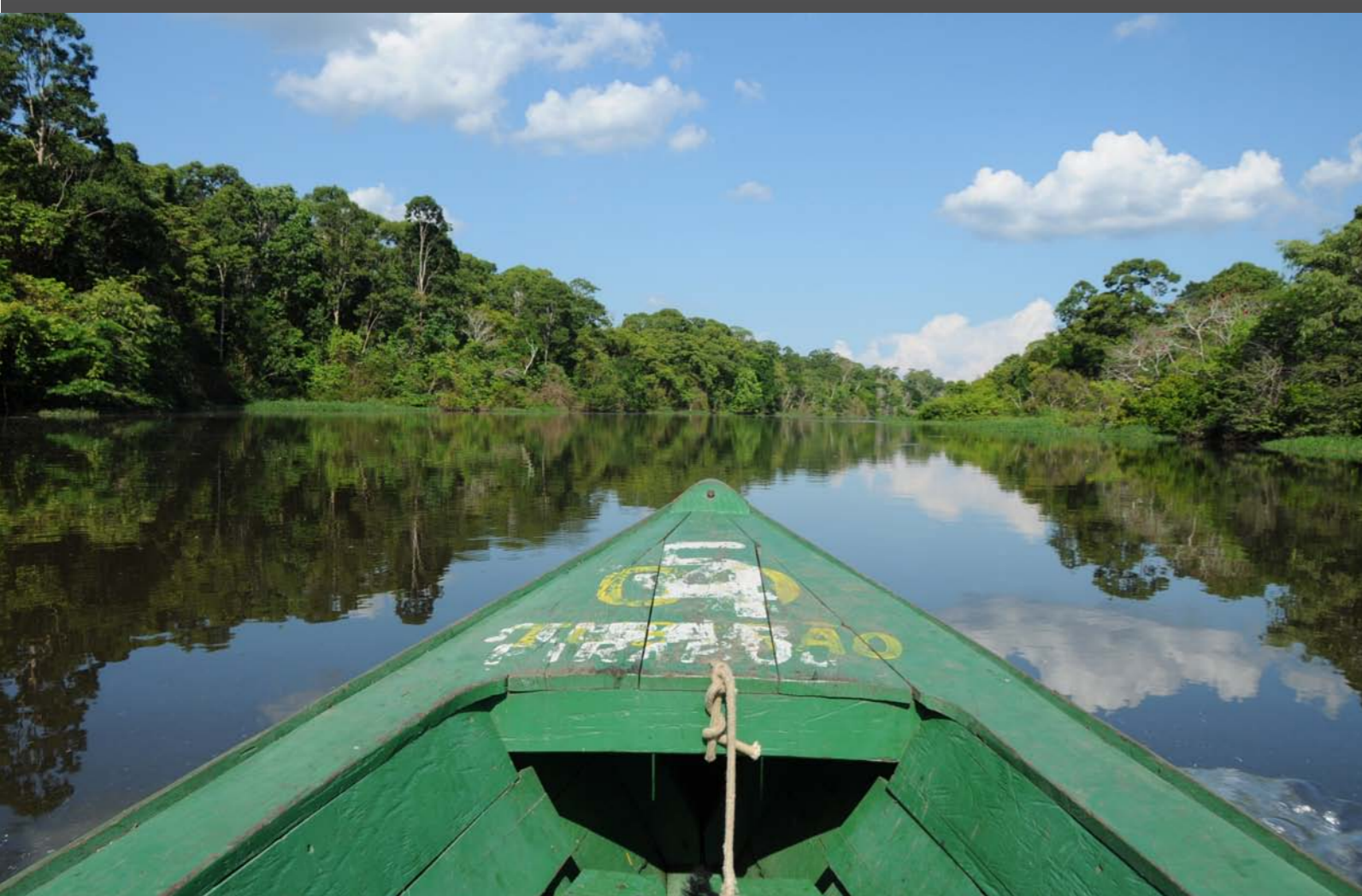


Photo Dafna Ben Nun



■ Pink dolphins feed on crustaceans, crabs, small turtles, catfish, piranha, shrimp, and other fish.



Photo Dafna Ben Nun



Photo Dafna Ben Nun

The relationship between man and the boto is a complex one, as the species is often feared and persecuted despite its near-mythical status. Amazonian folklore includes tales of shape-shifting beings called encantados. Their natural form is the boto, but at night they are able to transform into beautiful men and women who often show up at parties, seduce people, and produce illegitimate children with humans.

■ The Amazon river dolphin is listed on appendix II of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). It has an unfavorable conservation status and it would greatly benefit from international co-operation.



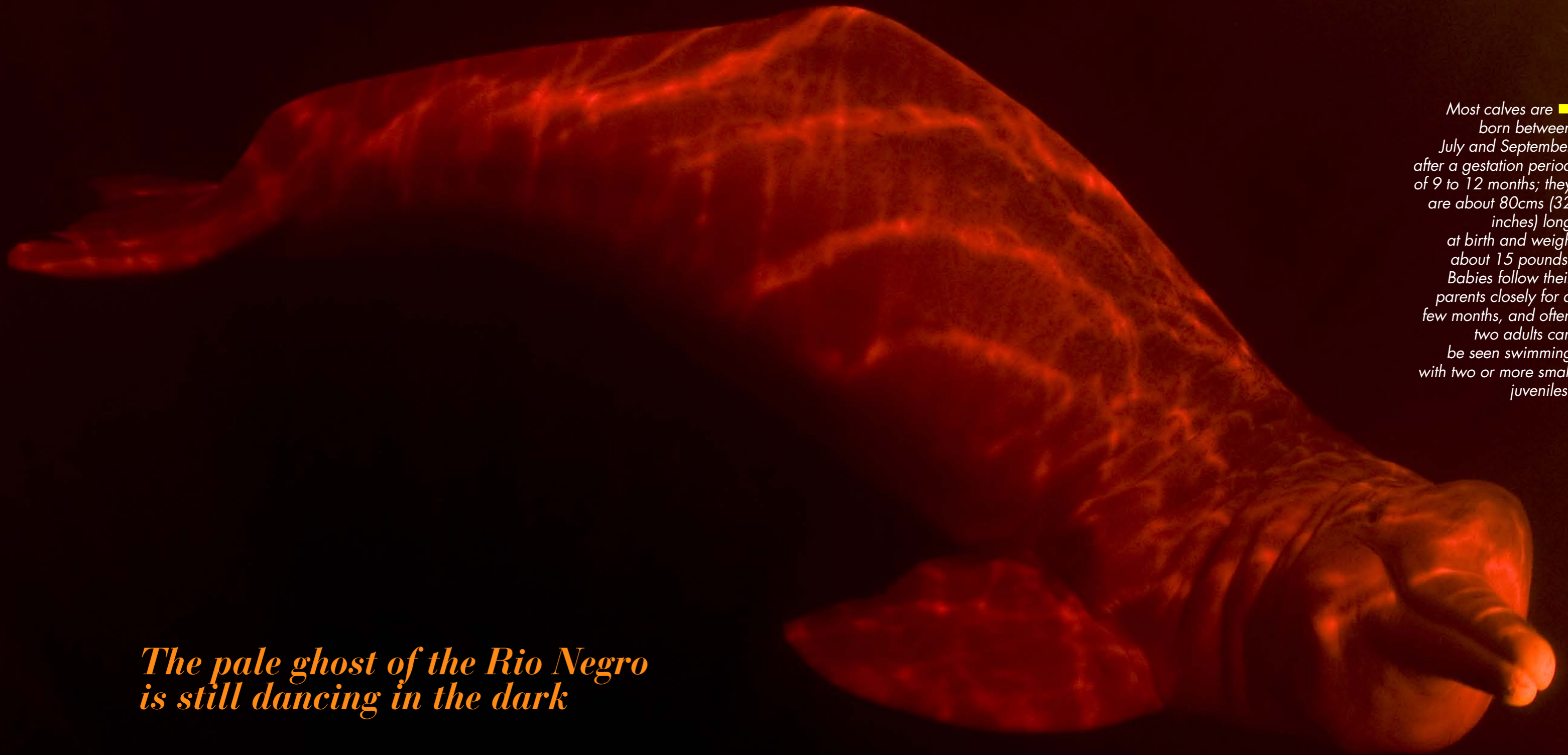
Negro, near the Arou lodge, 60km from Manaus. There is a place which they frequently visit and where they can be observed. With some luck, one can even get close and swim with them. This is a unique experience. It is impressive to see these 2.5 meter long animals suddenly emerge from the dark waters and move with amazing agility, especially when hunting. They can be very fast, and photographing them underwater is quite difficult. The Pink dolphin is well represented in the local mythology; some

Indian tribes of the Amazon worship it, while others think of it as an evil spirit and hunt it. The Gray dolphin is usually considered as sacred. A traditional myth of the Amazon tells that the Pink dolphins emerge out of the water come nightfall and transform into handsome young men to seduce girls. 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), persecution by fishermen because of destroyed fishing nets, river pollution due to raised mercury levels, fishing methods using explosives and overpopulation. 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 our planet's lungs.



Body length of the Amazon river dolphin can range from 1.53 to 2.4 m (5.0 to 7.9 ft), depending on subspecies. Females are usually larger than males. The largest female Amazon river dolphins can range up to 2.5 m (8.2 ft) in length and weigh 98.5 kg (217 lb), while the largest male dolphins can range up to 2.0 m (6.6 ft) in length and weigh 94 kg (210 lb).



Most calves are born between July and September after a gestation period of 9 to 12 months; they are about 80cms (32 inches) long at birth and weigh about 15 pounds. Babies follow their parents closely for a few months, and often two adults can be seen swimming with two or more small juveniles.

The pale ghost of the Rio Negro is still dancing in the dark