

Canon *PowerShot D10* Underwater Camera





FLAAR publishes reports only on equipment we use ourselves, we are not an advertising agency. This report is dedicated to an underwater camera Canon PowerShot D10. We tested this camera during our eco-system research trip to Monterrico, Taxisco, Department of Santa Rosa, Guatemala, Central America. Our primary goal was to study local water plants, which grow in swamps of this area. So it was a good chance for an underwater camera to show its abilities. Actually we had two different underwater cameras with us this week: the second was a Canon PowerShot S90 with a Sea & Sea package (frankly the Canon without the package was better than the system that cost literally 8 times more from Sea & Sea).

Nicholas Hellmuth used this camera to take pictures of sacred Mayan plant such as *Nymphaea ampla* “balona” (the white water lily), the *Pistia stratiotes* “lechuga de agua” and *Eichhornia crassipes* “nimpha.” In each part of Guatemala these plants have different local names, depending on the local language. For example, in the El Peten area, the names tend to be in the Itza Mayan language, so the name for the white water lily there is a variant on naab.

The Canon underwater camera is waterproof to a depth of about 10 meters, but we used it only to a depth of not much more than 1m. It is simple camera, everyone can learn how to use it in several minutes, and it takes good pictures as for camera of this reasonable (low) cost.



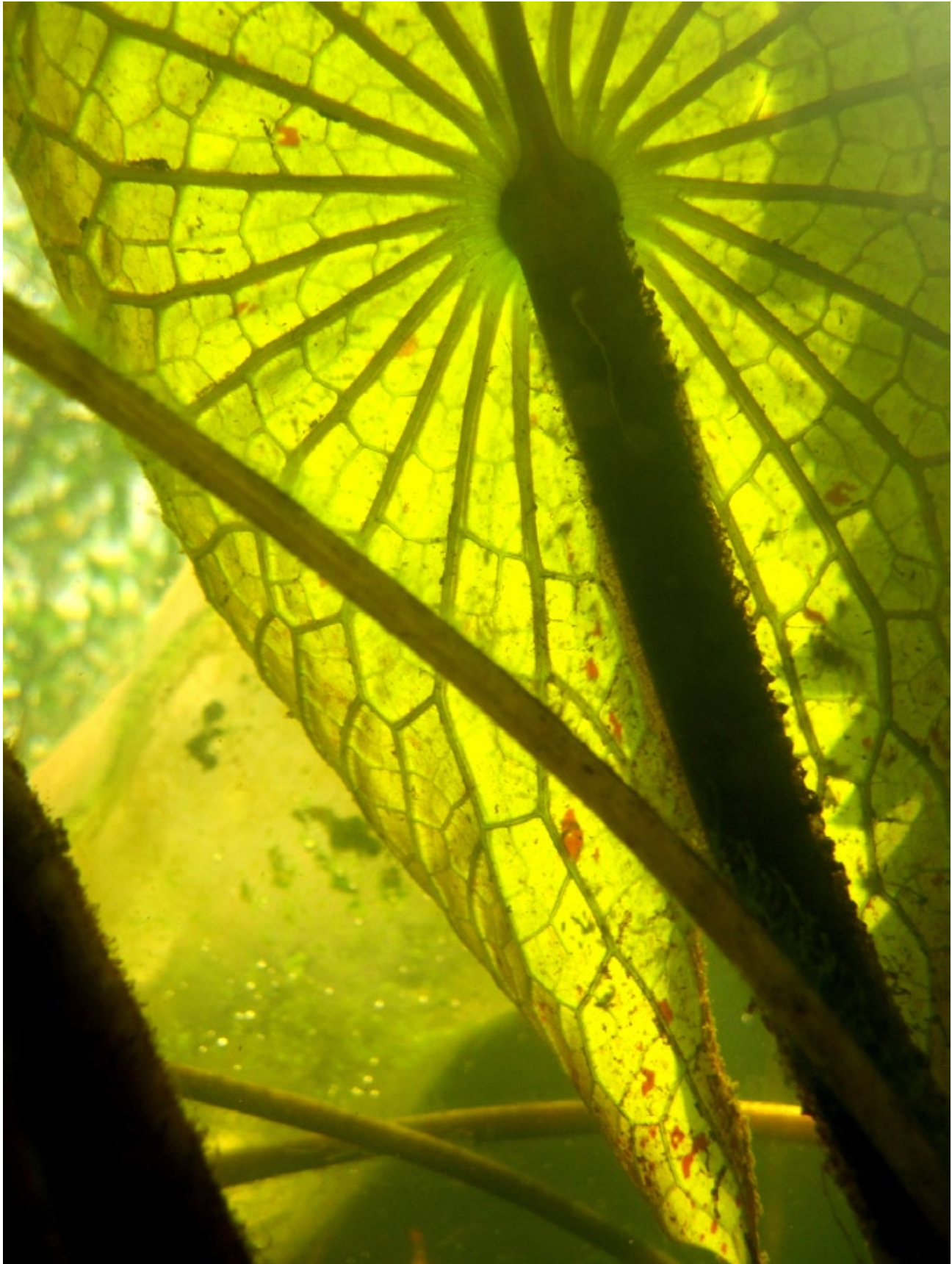
Here you can see Nicholas is taking picture of the leaves of water lily “balona”, as local people named it.

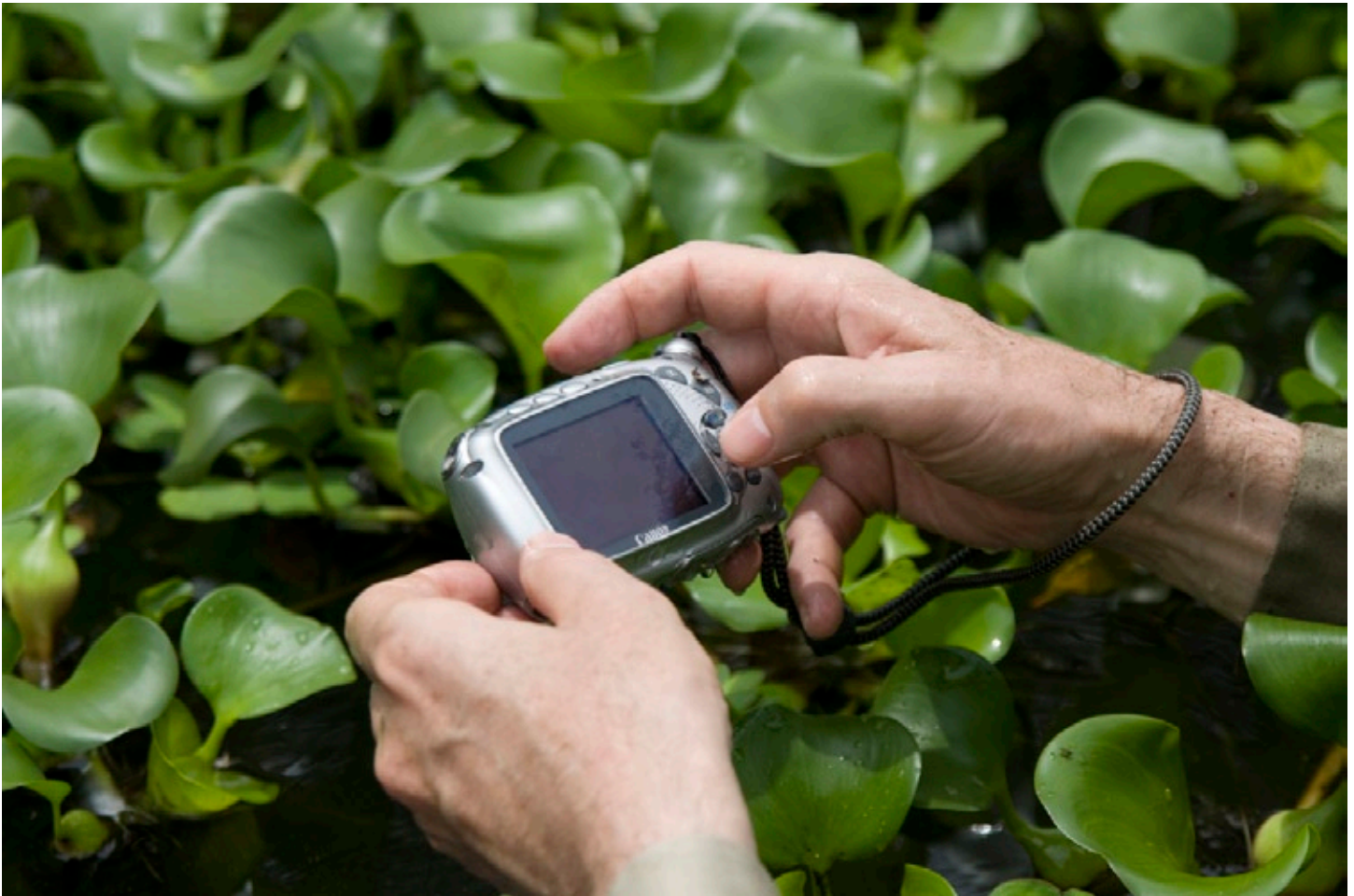
He holds the camera under water near the roots of balona.

The swamps of this area can be dangerous because of crocodiles or snakes, but so far we have been lucky not to meet them.

If you are going into water it is better to be full clothed and even your shoes should be on your feet, this may protect you from the sun, as water works like a lens, and also from any creatures that are in water. Shows also protect you from any broken glass (or nasty insects) that may be at the muddy bottom. Sometimes you sink into the muck for about 20 to 30 cm.







Here Nicholas is going to take picture of nimpha roots, this plant floats on the water surface. It is curious that this plant does not yet seem to be found in Mayan art. Scientific name of nimpha is *Eichhornia crassipes*.

Canon PowerShot D10 has the same function sets like any Canon camera, you make better pictures changing adjustments. This camera can be used in different conditions, so even in muddy water it can take relatively good pictures.

You even can make video. We have made some video files, they looked very convincing.

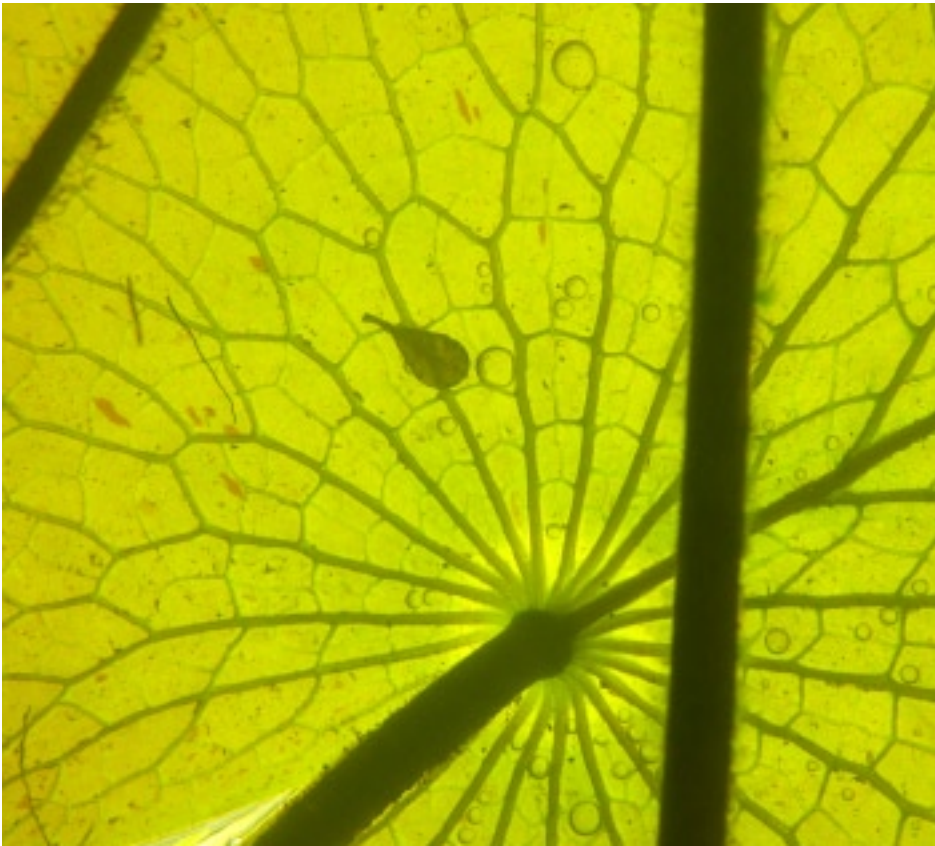




These are the pictures of *Pistia stratiotes* “lechuga de agua”, this plant is also floating on surface, gathering into a kind of “green carpet”.

The underwater picture of this plant is a part of Nicholas Hellmuth research of Underwater Mayan world, which continues his PhD dissertation on the iconography of the deities, plants, and animals that symbolized the Underwaterworld cosmological zone of the 3rd-9th century Maya of Guatemala, Mexico, Belize, and Honduras.

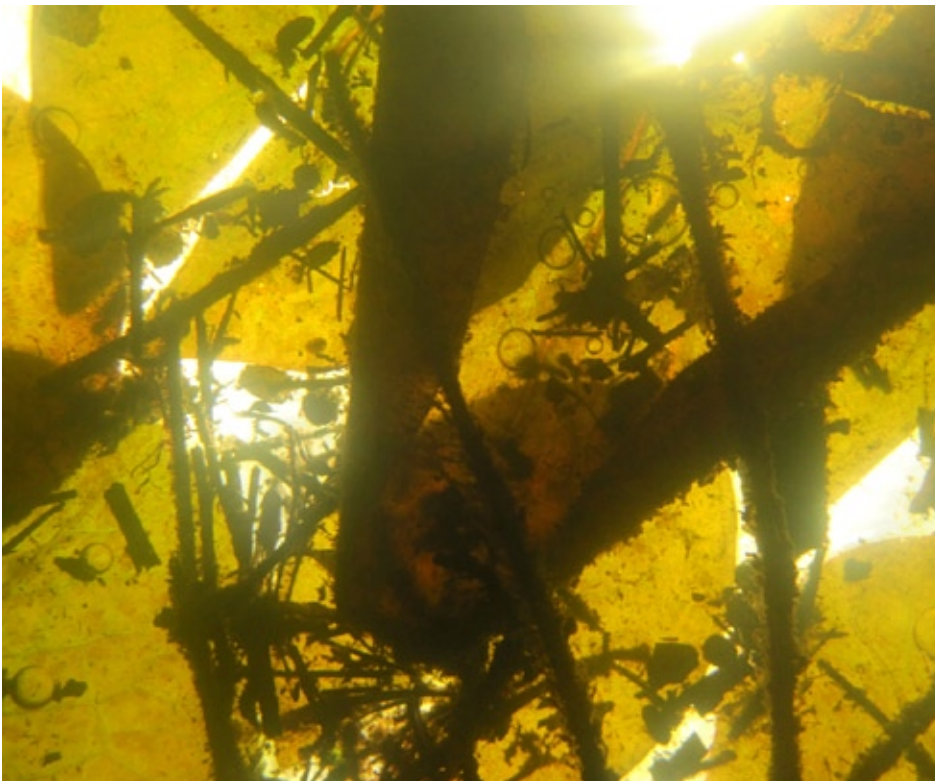




This picture shows details of balona leaves. You can see how the sun-light works, it makes a really nice effect. The light helps to see all details of this plant.

To make this picture Nicholas just directed the camera under the plant leaf.

This plant is *Nymphaea ampla* and it's local name is "balona" (the white water lily). It is the main plant of the Mayan Underwater-world. We also have several reports on this plant, but the species which may be found in Peten. See our Maya archaeology web site (www.maya-archaeology.org)



Here are the water lily leaves, in this case the sun light colored them into orange color.

We have a theory that this is a special property of a water lily, the leaf's lower part (which is in water) colour depends on the angle of the light gets on it, so the colour changes from green to red.

You can read about this research in other reports on Monterico trip, they will be published in a while.

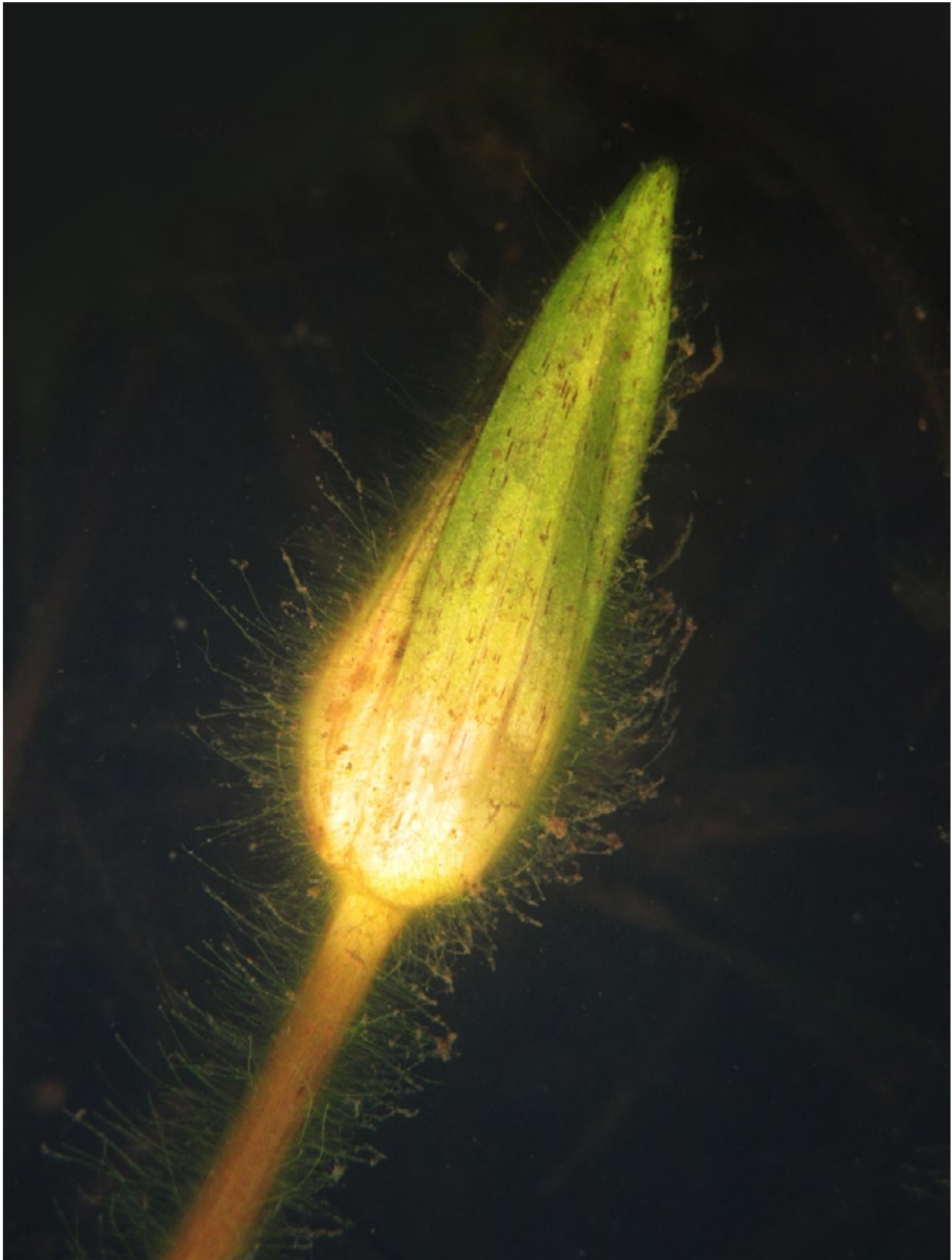


This is the view of the pond, the Canon camera is half in the water.

This area is protected by Centro de Estudios Conservacionistas Universidad de San Carlos de Guatemala (CECON). It is a special place, that is situated between “land” and ocean, this ecosystem works like sponge for salty ocean water. And here you can find some endemic species of plants and animals.



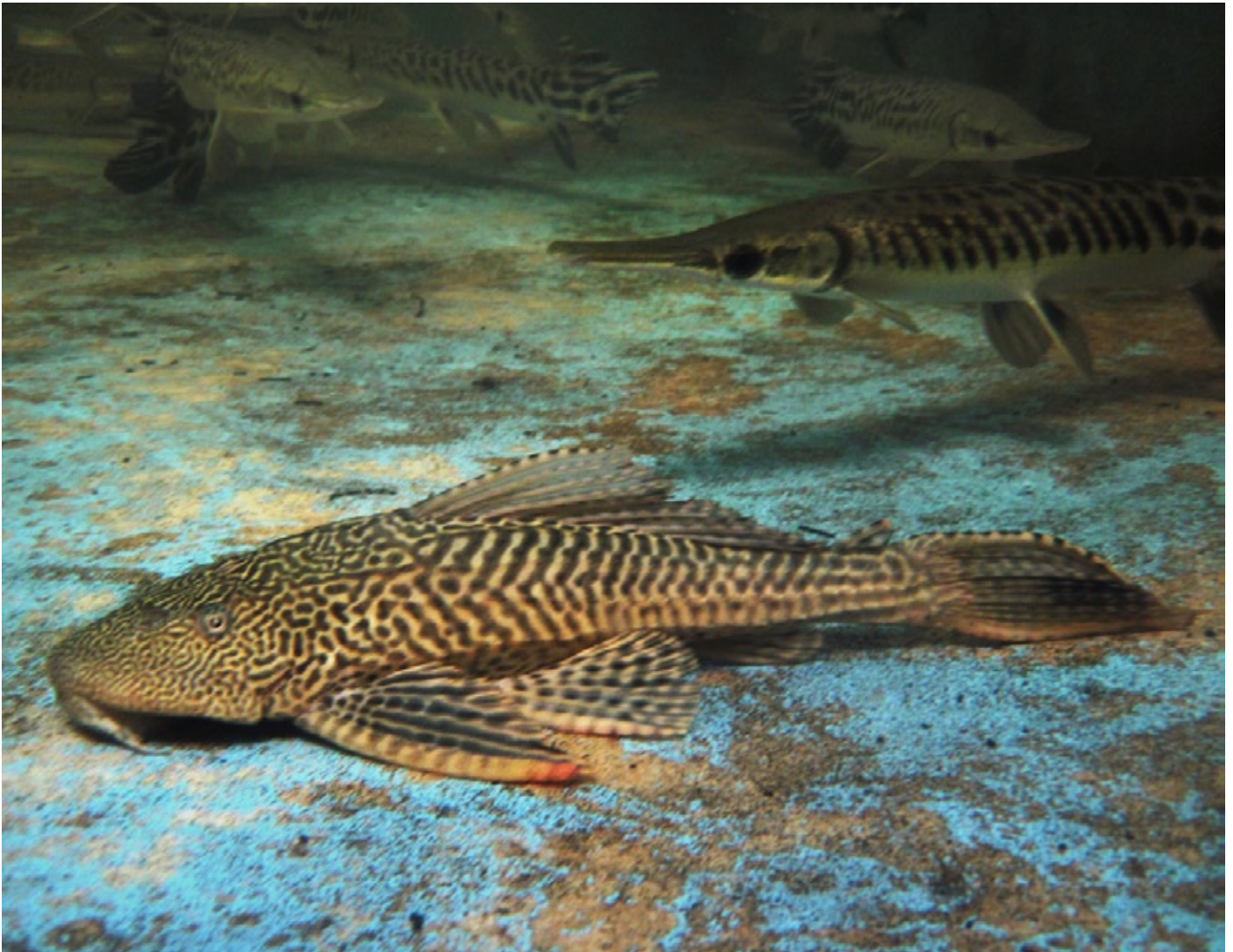
The small fish is a *Astyanax aeneus* or “pepsca”.





In Monterico in 100 meters from the ocean there is a baze of CECON, they keep there animals at risk of extinction. So the stuff of this “zoo” kindly provided us the opportunity to do photography there.

Here you can see a sea turtle *Lepidochelis olivacea* . This beautiful animal has been put to a pond with clear water, and we got very colourful pictures. But we should admit this camera doesn't take good images of moving objects, so we had to wait until the turtle calmed down.



During this trip we had two biologists Ivo and Eduardo in our team, they told us that this is not a local fish. This fish's scientific name is *Hypostomus plecostomus*. There is no special local name for this fish, due to the fact that it is not local and is new in the area. This species is very similar to the one that is quite popular in Aquarium world, the one that is called "plecostomo".

The other fish you see here is *Lepistosteus tropicus* or "Machorra" or "Peje lagarto".