

# The Names You Know, the People You Don't:

## *Dr. Louis Agassiz*

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During my presentation in January 2011, some people indicated that the Latin names I was so used to dealing with in my interest with Rainbowfish, weren't necessarily known to them. ("Now you are all familiar with Dr. Gerald Allen, right? ... No? Okay, he is...") The fish that captivate their interest have different discoverers, describers and honourees associated with them, and as they were not related to Rainbowfish, I had never really looked at those names. At the January 2011 meeting George had once again asked me to lend a hand with the auction and in doing so I ended up auctioning a bag of *Apistogramma agassizii*, named in honour of the next gentleman I would like to introduce you to.

On May 28<sup>th</sup>, 1807 Jean Louis Rodolphe Agassiz was born in Môtier, Switzerland to the Reverend Louis B.R. Agassiz and his wife Rose. The eldest of four surviving children, Louis (as his family always referred to him, and as he would always be known) was seen as special – charming, exceedingly bright and with an inquisitive approach to the world around him. He was initially educated at home by his mother and father, but at the age of ten he left for formal schooling at the College of Bienne where he studied until he was fourteen. Then, deciding that he did not want to be a clerk for his uncle, he managed to obtain a placement at a college in Lausanne, Switzerland where he studied for another four years. Both the schools in Bienne and Lausanne emphasized languages, especially the classic ones – Latin, French, Greek, German and Italian. Seeking to further his understanding of the natural sciences, and leveraging his skill with languages, he was able to find a place at a school in Germany, the University of Zurich.



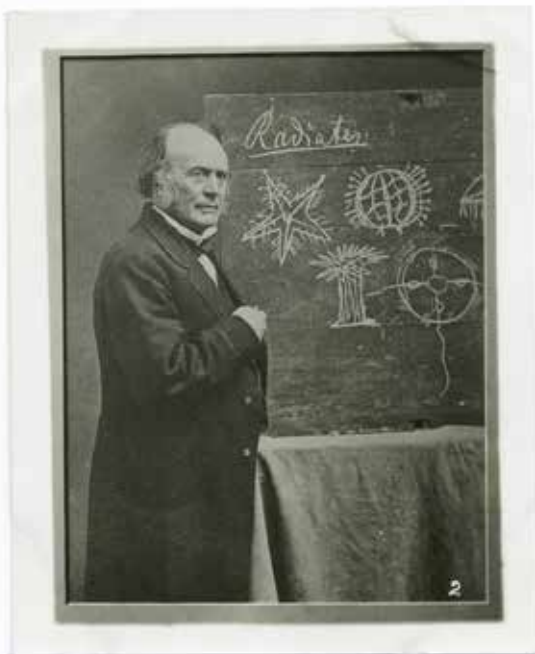
*Dr. Louis Agassiz*

The next five years were a period of intense study that saw Louis at the aforementioned University of Zurich, the University of Heidelberg, the University of Erlanger-Nuremberg and the University of Munich. During this time he received a Doctor of Philosophy degree from Erlanger-Nuremberg (1829) and a Doctor of Medicine degree from Munich (1830).

Fully endowed as a Doctor, Louis left Germany for Paris, France. There he continued his studies under the tutelage of Alexander von Humboldt (a noted German naturalist and explorer whose work on botanical geography laid the foundation for biogeography) and Georges Cuvier (a French naturalist and zoologist who was the first to establish extinction as a fact). From von Humboldt he was taught geology and from Cuvier, zoology.

Also during this time he was hired by Carl Friderich Phillip von Martius, a noted German botanist and explorer. From 1817 to 1820 von Martius and Johann Baptist von Spix undertook an expedition to the Amazon River. The expedition gathered 6,500 plants, 2,700 insects, 85 mammals, 350 birds, 150 amphibians and 116 fish. While these specimens were to become the basis of the collection of the Natural History Museum in Munich, Germany, von Spix died in 1826 before he could complete classification of the fish. This resulted in von Martius hiring Louis to assist in the classification and description.

In 1832 Louis was appointed a professor of natural history at the University of Neuchâtel in Switzerland. Around the same time he married his first wife, Cecile (Cily) Braun. He continued to study, publishing mainly on fossil ichthyology but also on various aspects of geology. In 1837, the same year he was elected a member of the Royal Swedish



Academy of Sciences, he published a paper in which it was first scientifically proposed that Earth had been subject to previous ice ages.

In 1942 Louis was invited to the United States of America to present a lecture on *The Plan of Creation as Shown in the Animal Kingdom*. During and after his twelve lectures, Louis found that both the scientific and financial advantages presented were great, and he decided to spend an extended time in the United States and Canada where he could indulge his curiosity and interest in both ichthyology and glaciology.

Sadly, in 1948, Louis received word that his wife Cecile, who had remained in Switzerland with their three children while Louis was in America, had passed after a prolonged illness. After a brief return to Switzerland, he came back to America, this time to stay.

Shortly thereafter he was offered the positions of both professor of zoology and professor of geology at Harvard University. Later in 1849 his fourteen year old son, Alexander would join his father in America. Also that year he would announce his engagement to a college teacher, Elizabeth Cabot Cary, the sister-in-law of one of his fellow professors. They would marry the following year, and in August of 1850 Louis' thirteen year old daughter Ida and nine year old daughter Pauline came to live with him, his new wife and their brother Alexander.

Although all his previous teachings in Europe and all his previous scientific theories and discoveries were extremely successful, it was at Harvard that the scientific legacies of Louis became permanent. The next ten years of his life were filled with teaching, publications and scientific lectures, and they culminated in his being one of the best know scientists in the world.

But the frenetic pace that he kept wore on him. In the mid-1960's, suffering from ill health, he forewent academia to return to active collecting. In early 1865 he lead an expedition to Brazil, returning home in late 1866. His account of this, *A Journey in Brazil*, was published in 1868. In December 1871 he joined the Hassler Expedition to South America alongside his wife Elizabeth.

Just under two years after returning from his last expedition, Louis died on December 14<sup>th</sup>, 1873 at age sixty-six in Cambridge, Massachusetts.

## Criticism

For all that Dr. Agassiz's work was deemed extremely successful, it must be noted that there is also a stigma associated with him. As the son of a pastor, Dr. Agassiz was deeply religious. He believed in God and believed that God created Earth and all its inhabitants. He was adamantly opposed to the Theory of Evolution as being presented by Charles Darwin and the theories of Dr. Agassiz always allowed for the work of God.

The major criticism of Dr. Agassiz's work is in relation to his theory that has come to be known as "scientific racism". Basically the theory that he espoused posited that the different races of humanity came from separate creations, and that they therefore possessed separate and unequal attributes and abilities.

In recent years, there have been those who have sought (and in some cases succeeded) the renaming of institutions and landmarks that had formerly been named in his honour based on what they see as his scientific racism.

## Legacy

The work of Dr. Agassiz was so far reaching that many places, geographic features, and species have been named in his honour. A partial list includes;

### Places

- Agassiz – A neighbourhood north of Harvard University in Cambridge, Massachusetts)
- Agassiz Crater (Mars)
- Agassiz Glacier (Montana)
- Lake Agassiz – An immense prehistoric glacial lake located in the centre of North America. Fed by glacial runoff at the end of the last ice age, it was greater in size than all of the modern Great Lakes combined, and held more water than all the lakes in the world today.)



## Mountains

- Mount Agassiz (4,236m/13,899ft – California)
- Agassizhorn (3,946m/12,946ft – Switzerland)
- Agassiz Peak (3,766m/12,356ft – Arizona)
- Mount Agassiz (3,733m/12,248ft – Utah)

## Non-Fish Species

- *Anolis agassizi* (lizard)
- *Astrotoma agassizii* (Antarctic invertebrate)
- *Berthella agassizi* (sea slug)
- *Chelonia agassizi* (sea turtle)
- *Cyphastrea agassizi* (coral)
- *Exoprosopa agassizi* (bee fly)
- *Gopherus agassizii* (Desert Tortoise)
- *Isocapnia agassizi* (stonefly)
- *Publius agassizi* (beetle)
- *Xylocrius agassizi* (longhorn beetle)



***Gopherus agassizii*** (Desert Tortoise)

## The Fish

- *Alepocephalus agassizii* (Agassiz's slickhead [Marine])
- *Ambassis agassizii* (Agassiz's olive glassfish)
- *Aphyocharax agassizii*
- *Apistogramma agassizii* (Agassiz's dwarf cichlid)
- *Cathorops agassizii*
- *Chlorophthalmus agassizi* (Shortnose greeneye [Marine])
- *Corydoras agassizii* (Agassiz's cory cat)
- *Cratinus agassizii* (Threadfin seabass [Marine])
- *Foetorepus agassizii* (Spotfin dragonet [Marine])
- *Forbesichthys agassizii* (Spring cavefish)
- *Ipnops agassizii* (Grideye fish [Marine])
- *Leporinus agassizii* (Agassiz's leporinus)
- *Leptochilichthys agassizii* (Agassiz's smooth-head [Marine])
- *Liparis agassizii* (Agassiz's snailfish [Marine])
- *Monomitopus agassizii* ([Marine])
- *Orestias agassizii* (Andean pupfish)
- *Pomacentrus agassizii* (Creole damsel [Marine])
- *Rioraja agassizii* (Rio skate [Marine])
- *Salvelinus agassizii* (Silver trout)
- *Scorpaena agassizii* (Longfin scorpionsifh [Marine])
- *Xenichthys agassizii* (White salema [Marine])



***Apistogramma agassizii***  
(Agassiz's dwarf cichlid)



***Corydoras agassizii***  
(Agassiz's cory cat)

The species we are familiar with in our hobby are *Corydoras agassizii* and *Apistogramma agassizii*. I actually have a small school at home of *C. agassizii*, but DRAS members, especially the cichlid orientated ones, would be most familiar with *A. agassizii*, a species that has been in the aquarium hobby since 1909 when they were first imported to Germany. They were first described in 1875 and were first gathered by Dr. Agassiz during his aforementioned expedition to the Amazon in 1865 – 1866.

Next time I have the chance to auction some *Apistogramma agassizii*, I'll be sure to remember Dr. Louis Agassiz and I hope you will as well.