

What lies *beneath*

Swiss-born lensman Michel Roggo has dedicated the greater part of his profession to taking spectacular images of our global freshwater sources, revealing both the splendour and vulnerability of such ecosystems through his photography. Saevus catches up with the award-winning photographer.



Michel Roggo

Michel Roggo is based in Switzerland, and this has a lot to do with his passion: He started freshwater photography in the countless crystal clear rivers and lakes of the Swiss Alps. With 25 years of experience and about 100 expeditions worldwide, he is currently working on a global freshwater project: photographing 30 locations in 4 years. Michel's many accolades include the BBC Wildlife Photographer of the Year 2004, 2008 and 2010, as well as runner-up as European Wildlife Photographer of the Year 2009.



Red Salmon (*Oncorhynchus nerka*) waiting in lake to enter the Adams river for migration upstream. British Columbia, Canada 2006



Chubb (*Leuciscus cephalus*) waiting for food at outlet of lake. Croatia, 2005.

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Greetings from Saevus, Michel! As someone born and brought up in the vicinity of the Swiss Alps, what are your earliest memories of nature?

My very earliest memories of nature are those of Sundays spent with my family on the shore of one of the beautiful rivers flowing out of the Alps. Crystal-clear, cool water, plenty of swimming around, making a campfire, and our first attempts at fishing - it was truly a wonderful day out for all kids!

We read that an initial trip to Alaska and the glimpse of a migrating salmon inspired you to explore underwater landscapes. Do tell our readers about your transition from science teacher to nature photographer?

My older brother was a teacher, so I went on to pursue that as well. It was a good job, but after a while I got a bit bored of teaching the same subjects every year. I discovered photography by chance, through a colleague who was a passionate nature photographer. He insisted I try out one of his big telephoto lenses on some Roe deer coming out of the forest close to my home. I'm a polite guy, so I took his camera and lens home with me. I was, at that time, a 30 year old who had dabbled in some music and painting but was never interested in photography. Yet, when I went out to the forest and captured some images of the deer - I was immediately fascinated with the process. Two months later I was in Kenya to photograph lions and other species, and a few years later I started photography professionally.

In 2011, you started on The Freshwater Project. Tell us more about this unique assignment and how it came to be?

I did freshwater photography for about 25 years, travelling all over the world. Most of the time, I was after some interesting species of fish - salmon, for example - or ecosystems, such as the Amazon rainforest. Over the years, I gained experience in underwater photography in rivers, springs, flooded forests, swamps, wetlands, and such, and at one moment, I started thinking about a big project which could use these images. Pretty soon I had this idea of working across the globe on



Rainbow trout (*Salmo gairdneri* *Oncorhynchus mykiss*) eggs in hatchery, Switzerland, captive.



Atlantic salmon alevins (*Salmo salar*) Europe, Captive.



Sockeye Red Salmon (*Oncorhynchus nerka*) pair spawning on gravel ground, Adams river. British Columbia, Canada, 1990.

freshwater ecosystems; to take pictures of 30 special freshwater locations over four years, places that are spectacular, vital and very different from each other. I contacted some foundations and NGOs, but no one was interested in supporting it. I guess they were not really sure if it was even realistic to cover 30 locations around the world in four years. I realised I had just to start it without any help. The project developed quite well, and once I had photographed 15 or so locations, there was more interest in the venture, along with some of the first publications. It was only then that the IUCN contacted me to work on some sort of collaboration. In a sense, The Freshwater Project is still not an assignment, but a personal project, supported by the IUCN.

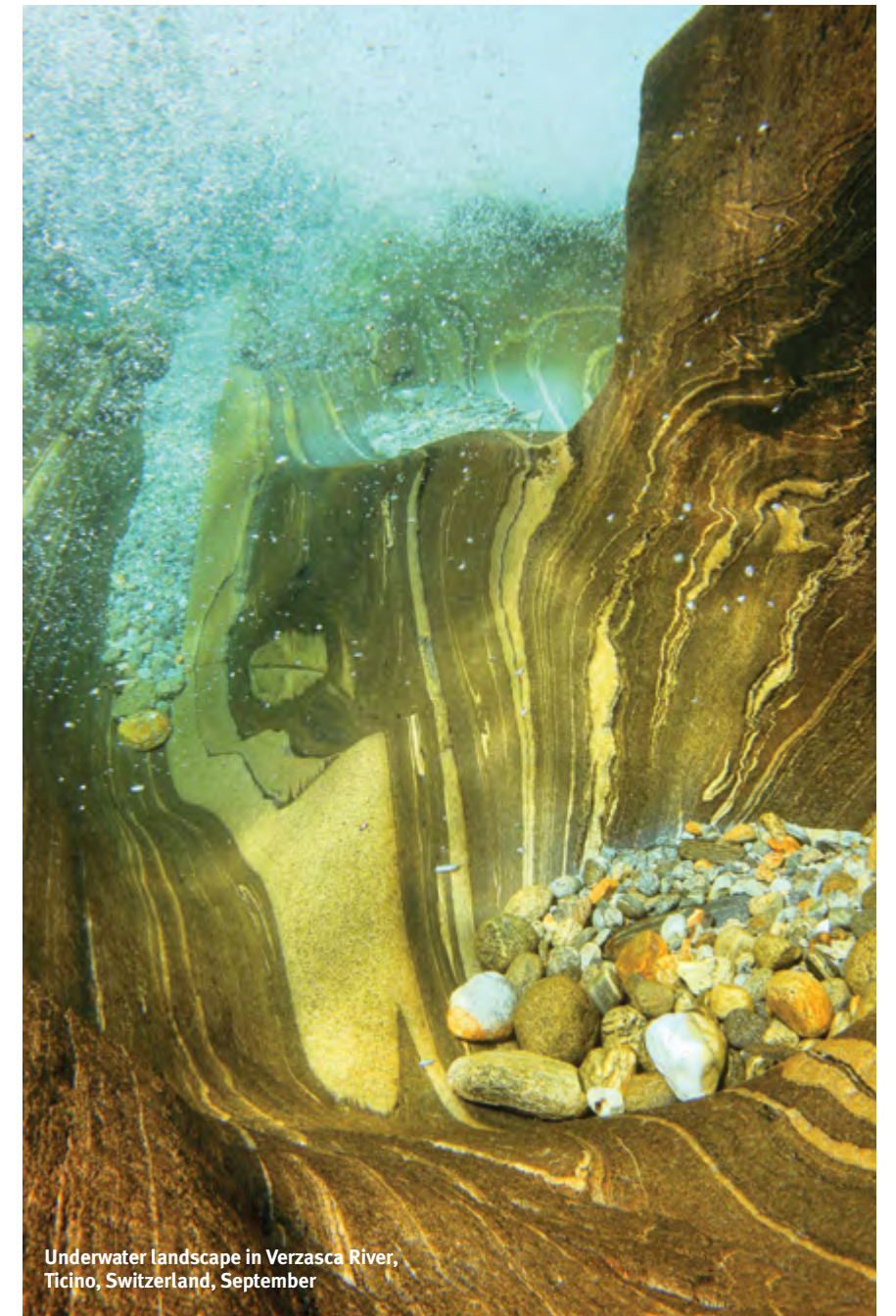
Over the years, you've perfected the technique for shooting underwater without having to dive. Could you explain the advantages of this method? What are the technical factors that you keep in mind during underwater photography?

I started remote controlled underwater photography because I wanted to photograph the Salmon in Alaska, travelling alone for weeks out in the bush on a canoe. You can't do this that easily with diving equipment. I started very simple: sitting on the shore, just holding a Nikonos V underwater camera in the water. Of course that didn't work. The next year I returned with a camera in an underwater housing, and used this on the river ground. With a cable I could release the shutter. I waited for fish to swim close to the housing. This was not really working either, but some shots were quite good. The next year I returned with the same system, but with a small built-in video camera. That way I could see what happened in front of the lens. Now the system worked very well. This might not sound very original, I know; but this was 30 years ago, and I was certainly one of the first - if not the first - to photograph that way under water.

There are many advantages to work with such a system, especially in rivers. You can wait for hours on the shore. You can work on dangerous locations, or with dangerous animals. And animals get used to a housing on the river ground, so



Sea lamprey (*Petromyzon marinus*) close up of disk-shaped mouth with teeth, Europe.



Underwater landscape in Verzasca River, Ticino, Switzerland, September

Photography is to do something new, to produce at least a fresh view of something very well known. In a location where perhaps no one has photographed before, this is very easy. You just go there, with no idea of how it may look—like a little child with eyes wide open—and discover a new world.

they behave more or less normally. But the water has to be very, very clear. And you can never be close enough to your subject, as you have to use extreme wide angle lenses (I mostly use the 15 mm lens). Often, there are air bubbles forming on the dome glass, sometimes very fast. It is not as easy as it sounds.

You started snorkelling and diving on your 60th birthday! How was the experience?

Yes, I started snorkelling the day after my

60th birthday, in the extremely beautiful but dangerous Swiss river Verzasca. Of course, I was not that naive to snorkel for the first time in an unknown river. I knew the Verzasca very well; I had photographed in it many times with my remote-controlled system. And I went there when the river water flow was about 3 cubic metres per second. The last time a diver died in it, the Verzasca was carrying water at 34 cubic metres a second! That's a torrent! And the water is very cold. But this first experience

was marvellous: to see with my own eyes this wonderful underwater world I had seen for more than 25 years on a monitor from the shore. Two years later I had to learn to dive, as I was on the way to Lake Baikal. Some Russian friends had invited me to work there, and in this lake of all extremes, I simply could not work without diving. It is the deepest lake on earth, holding 20 per cent of the world's freshwater. But to jump for the first time from the dive boat in this dark and very cold lake was a bit challenging.

And it was in September, stormy and cold. Perhaps I should have considered having my first diving experience in the Red Sea!

Essentially similar freshwater habitats can reveal a world of difference underneath, as seen in your images. As a photographer, how do you approach the spirit of a landscape to distinguish it from others?

This is not really easy to explain. I guess the most important thing is to go to a new

Underwater landscape with water lilies, Juktan, Sweden, July.

location without too many ideas and wish lists. If you would go to the Grand Canyon in the USA, for example: this location is so heavily photographed that it is almost impossible to go there without some images already in your head. You would always be in the danger of recreating something you've already seen. And photography is to do something new, to produce at least a fresh view of something very well known. In a river or swamp or flooded rainforest, at a location where perhaps no one has photographed before, this is very easy. You just go there, with no idea of how it may look—like a little child with eyes wide open—and discover a new world. And then you just regulate and manage the different elements of landscape photography: composition, light, colours, that are further enhanced by the magical light in water due to the reflection and refraction of the sun rays on the surface.

As a photographer, what are some of the urgent changes you've noticed in these freshwater landscapes over the duration of your career?

You see, I'm a photographer, not a scientist. I have, of course, some basic

knowledge about freshwater, as I have worked in and around it for such a long time. But other people—scientists, NGOs—are essentially the ones who must point out the importance of freshwater sources. I can deliver the images to raise public awareness about the beauty and importance of freshwater habitats and species.

If you ask about changes I may have observed: yes, there are changes, definitely, and sometimes they occur very fast. In my home country of Switzerland, with its glaciers, rivers, creeks and lakes, I've observed a dramatic decline of fish populations, especially around the 90s. In a few years, many rivers lost their fish population, not only in overall numbers, but in species as well. As a kid, I saw some species spawn in the Sarine river, just in front of my school, by tens of thousands. Now they are extinct. Zero. Or again, I was in the Amazon in the 1990s, travelling on riverboats for months on all those magical rivers: Amazon, Rio Negro, Tabajos, Xingu, Tocantins, Trombetas and more. Recently I went back—there are so many more people, houses, roads, even on remote and once pristine rivers. In Manaus, where there were a million

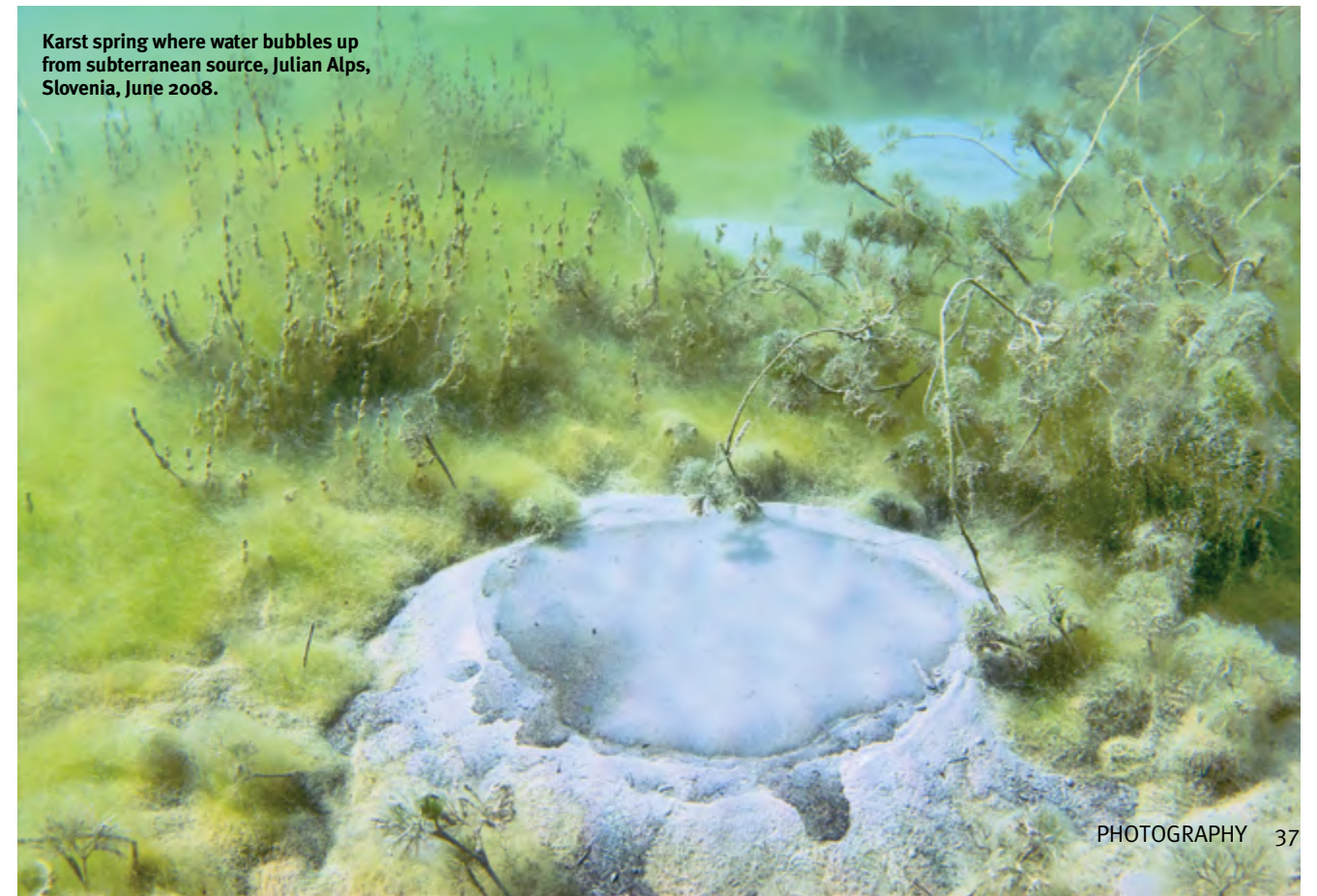
people, now there are 2 million. By flying with the bush pilot over the rainforest, I could see all these new roads that had sprung up in the middle of nowhere, built to log the forest, to dig for gold.

But it may go the other way as well: in some countries, they are starting to revitalise rivers, give them more space, destroying the obstacles that crop up for migrating fish. It is incredible how fast a river can recover in such situations. This is definitely a ray of hope for the next generations.

Your aim behind picking up the camera is to stimulate and make people aware of the freshwater world. How far do you think you've come towards achieving this goal? What are the challenges?

Well, as a photographer, you can only achieve such a goal by first thinking about the business side. To go out and make images, you need an income, especially if you are travelling a lot. Those trips are expensive, and additionally you need all this camera equipment and computers. You first have to think about this, only then can you go out and make the images. Selling your images can take considerable effort too, and

Karst spring where water bubbles up from subterranean source, Julian Alps, Slovenia, June 2008.



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in today's times, this is becoming even harder. Internet has destroyed the price and value of images, but it has created a global market as well. If you have a very special image, you can sell it all over the world. But if you have the images that others have as well, good luck! You will never get the money you need to do your job.

This sounds, perhaps, a bit disappointing. But only once you make a living with your work, can you start to think about how you can change the world for the better. You have to be in the market, know the right people. And this is important. I'm sure that I can never really

change the world with my images—but other people may do it. This is why I'm happy to cooperate with the IUCN for The Freshwater Project: hoping that they may yet save the world of freshwater.

In your opinion, what are some of the newer ways in which nature photography can raise awareness about serious conservation issues?

I'm afraid I may not to be the right person to answer this. But I clearly realise that times have changed: you cannot save the world alone like Bruce Willis. Of course, there are the benefits of social media, but this is time consuming if you want to



Uaru triangle cichlid (*Uaru amphiacanthoides*) in flooded forest, Rio Tabajos, Amazon, Brazil.



European grayling (*Thymallus thymallus*) alevin, 18 days, feeding on zooplankton, from Lake Thun, Switzerland, April 2009.

European grayling (*Thymallus thymallus*) Sava river, Slovenia, June 2009.



do it right. It is sometimes hard enough to get the images I'm looking for and sell enough copyrights to make a living. Perhaps, you have to work in a team for bigger ideas. I have been a member of the ILCP since about one year. You may take one look at the mission and values of this organisation to understand that this is something a photographer can never achieve alone.

Apart from The Freshwater Project, you've been on several other photographic journeys across the world. What are some of the favourite experiences that you recollect from these expeditions? There are always two parts to this. To begin with, you are working in some of the most beautiful places around the world. But I have to say, that often, it is harder to leave a location because of the contacts I make with the local people. They are so different all across the globe, with their culture, traditions and languages. And since I normally avoid big cities and go out in the wild to do my job, I've never had any problems, even in countries that are considered dangerous or have high crime rates. The desire to meet other cultures has perhaps to do with my origins in a very small country, Switzerland, which is more or less a bigger agglomeration between two mountain ranges. So I love to venture out of this small country to meet other people, cultures, traditions, opinions, religions and more. For me the diversity of man is at least as interesting as the

diversity of the kingdom of plants and animals.

Finally, what would be your message to all the budding and amateur nature photographers in the world today who are hoping to turn their passion into profession?

To be honest, I should probably say, "Forget it"! But of course, I can't say that. I remember my first years as professional—very hard, always running out of money, happy to have published perhaps 100 images a year. But on the other hand, it was a great time: no money for sure, but all the time to take photographs. Then came the Internet, and that changed a lot. You can now buy a photograph of the Eiffel Tower for 5 Euro, probably even less. And there are people giving images away for free, just to be published. I know about magazines even asking for money to publish images—unbelievable, but true! Today, to sell hundred image copyrights a year is not enough, you have to think in thousands. This is only possible if you are specialised, if you do something that others don't. If all the photographers shoot to the right, aim to shoot left. Perhaps, I can put it this way: It's like being a musician, or a painter, or a writer, or a dancer—people who have to follow their art, even if the way ahead is daunting. If you must make photographs, do it. But be prepared for a very hard road towards success. ○