

Romulus Whitaker



In his 20s, Romulus Whitaker was not thinking about conservation. He was just incredibly fascinated with snakes. Today, he is one of India's finest herpetologist and reptile conservationist.

One of his earliest projects was setting up the Madras Snake Park in 1972. He then cofounded the Madras Crocodile Bank Trust and Centre for Herpetology, a reptile zoo located on the outskirts of Chennai. The scheme was initiated in 1976 to conserve Indian crocodiles which were facing extinction. Whitaker also created the Agumbe Rainforest Research Station in Karnataka to foster wildlife research and, in particular, to study king cobras.

He served as consultant on various national and international wildlife conservation boards including the United Nations, the World Wildlife Fund and the International Union for Conservation of Nature and Natural Resources.

He has authored more than 300 scientific papers and popular articles and created several award-winning documentaries. His efforts towards conservation have been recognized all over the world. In 2005, he received the Whitley Award for outstanding leadership in nature conservation. In 2008, he was selected as an Associate Laureate by Rolex Awards for Enterprise. Earlier this year, in 2018, the Government of India awarded him the *Padma Shri* – India's fourth highest civilian award.

On a bright Sunday morning, we sat down with Whitaker to talk about his love for reptiles, his forays into reptile conservation and the challenges involved.

As a child, you went looking for cool insects in your backyard. But slowly you

turned towards reptiles. How did your lifelong love with reptiles begin?

I've got a photograph of myself holding a snake, which my mother took when I was four years old. I think that's sort of proof of the pudding. We were living in a place in the New York State called Hoo-sick and there are no venomous snakes there and my mother knew that.

Once, I brought a dead snake back, this I don't remember. But I brought home the dead snake in a jar and both my sister and my mother were horrified that these nasty kids had killed the snake. I said I didn't do it, my friends did it. So, then when I found a snake, I brought it back alive and my mother apparently said how beautiful instead of the average mother's reaction.

We had an old aquarium which had a crack in it. She converted it into a terrarium and she said we can keep the snake in it. So, this is how my fascination with creepy crawlies started, but this snake was a little more than a creepy crawly. It had a tongue. It's not like a bug which is kind of an alien. It's almost like a human being in some ways. That was my interpretation.

Three years after that we moved to India. I think my mother was probably a bit nervous because this is the land of snakes and cobras. She also happened to see a film in those days called *The River* by Jean Renoir. Satyajit Ray was the assistant director. The film involves a little blonde boy growing up. His father was in some company in Calcutta and the boy gets bitten by a cobra and dies. I'm sure she must have had some pretty strange ideas after she saw that.

But coincidentally enough, the little boy (in the film) grew up to become a filmmaker and he and I made a film together called *Rat Wars* for the National Geographic. We also went to Calcutta to film the movie where there's a rat park and people come and worship the rats.

Moving into conservation – was that a natural progression?

I never really thought of myself as a conservationist. That kind of happened in the late 60s when I had come back to India after my aborted attempts to go to college in America. When I came back I really wanted to start a snake park. India

is the so-called land of snakes. But there are all these funny beliefs about them. People worship them but also fear them and kill them.

So, I thought a bit of education could help a lot. I was really impressed by Miami Serpentarium, a snake park I worked at in the USA, and I took that as my model. The guy who owned it, Bill Haast – you could call him my guru – set it up very nicely. He had all these reptiles: turtles, lizards and snakes. Crocodiles, of course. So, I ended up starting the Madras snake park. It had a 25 paise ticket fee. A million people came in the first year and I was totally overwhelmed.

That's how I got a grant from the World Wildlife Fund which had just started. It wasn't a huge grant but that's how I got on the WWF bandwagon and started the South India chapter of the WWF at the snake park. A lot of young people got roped into it too and that's when I started thinking about conservation.

The Irulas got involved in the Madras snake park. You helped them start a centre for venom production. Could you tell us more about it?

I met the Irulas way back in the late 60s and early 70s. I had read about them in an article by a guy called Harry Miller who was then with *The Indian Express* in Chennai. He introduced me to a couple of Irulas who lived near his place outside Madras and I was really impressed with their snake finding skills. I realized that this is my peer group.

But during those days they were involved in catching snakes and killing them for their skin which I didn't approve of. I understand now that the sustainable use of wildlife is quite okay, even if I don't like it personally. But the way they were doing it was definitely not sustainable. They were killing every snake in any season of the year which was bad for the snakes.

So, I got involved in the campaign of stopping snake killing. The government was all for it because the Wildlife Act had just come out and the snakes were included as protected species. But at the same time, all my Irula buddies were out of business and tribal people in India don't have an easy life.

So, we hatched this idea of opening a venom production centre in which you don't have to kill the snake. You extract the venom and release them back into the wild. Then we approached the forest department. They, of course, were dead against it: 'these guys are poachers and we are not gonna give them permission to catch snakes. They will just kill them'.

I convinced them that they won't. The plan developed in 1978 but it took till 1982 to get the actual permission. I remember going to the secretariat every week, sitting down and having endless cups of tea with various officers and trying to convince them that this is a good thing.

Venom is required to make antivenom. At that time there was one supplier – the Haffkine Institute in Bombay. But they didn't know how to catch snakes. It just seemed logical that the guys who knew how to catch the snakes should do the business. So that is how the Irula Snake-Catchers' Cooperative was formed.

I made it a cooperative society on advice from various senior people. The cooperative society is quasi-government, so getting permission would be easier and the government would have some kind of control. The only unfortunate thing was that it was a cooperative under the industries and commerce department and they don't know anything about tribals or their sensitivities. It should have been under the tribal affairs department or something like that. It probably would have made things a lot easier. But we are in the 40th year now and it's still going strong and is still the main supplier of venom. I am very proud of that.

And now you are planning to source snakes from other states to make it even bigger.

Yeah, it's a very important thing. We found that there is a lot of geographic variation in venom. For antivenom to be effective in West Bengal, it should be effective against snakes found in West Bengal. But that's just speaking very generally.

The reason I am here is because I am collaborating with Kartik Sunagar, head of the evolutionary venomics lab at IISc. They are testing the efficiency of antivenom against the venom samples that we have collected from throughout the country. We got samples from West Bengal, Rajasthan, Punjab. We just came back

from Andhra Pradesh. Now, Kartik and his research team are looking at all the venom samples to see how they compare with each other and how different they are from each other.

A simple way to make antivenom effective is to make sure venom is taken from four geographic corners of the country and ideally, the Irulas should do it. But they will have to change their ways entirely.

The World Health Organisation now has a protocol for the production of venom and they don't want snakes taken from the wild anymore. Snakes should be taken out from the wild, kept in captivity and bred in captivity. That way you know the source of the venom, where it came from. You know how old the snake was, the sex of the snake. Apparently, venoms vary between the sexes and according to the age of the snake. There are all sorts of variations that we are just finding out. These will determine the efficiency of the antivenom and whether it will save your life.

Even though antivenom has been around for well over a hundred years, we still don't know that much about it and how it can be perfected. They have perfected it in America and Australia where it costs a thousand dollars plus for one vial. The expense is out of sight for India. We have the cheapest antivenom in the world, but it's not the top quality. It's not the best. It's not the strongest. It's not the most effective in many cases. So, we are hoping to solve some of these problems. I am not the research guy or a scientist, I am a snake catcher. But I'm playing a role in this.

So, what are the challenges you faced as a reptile conservationist? When you started off it must have been a very different field and today it's quite different. What are the changes that you see in the field?

Well, the first challenge is of course that the reptiles aren't very popular creatures. If I were a tiger man, wow! Or even birds. The popularity of wildlife has often come through birds. I am fine with birds. I believe getting through to people through wildlife is amazing. It's so fascinating, people are easily hooked.

And the changes now, compared to when I started, are vast, particularly with respect to reptiles. There's now this group of students here at IISc who are

Ph Ds or aspiring Ph Ds and are already very accomplished. Some of the gaps in their knowledge are getting filled in by field people like me who give them a different perspective due to a long experience with reptiles. It's a very positive sign that there is a lot of keen interest in reptiles now, which wasn't there back then. Snakes were looked upon as very dangerous creatures that are out to get you and take advantage of you. Crocodiles, of course, are considered by many to be equally nasty creatures who want to kill you or your children. So, it was quite a challenge to get people to think positively about them.

Now, I usually use the excuse that snakes are very important because they eat rats. But it takes a little more than practical solutions to change perspectives. People see people like myself and my colleagues so interested in animals and they start thinking, why are they so interested? And then they get into it. It has a kind of snowball effect.

For example, Madras Crocodile Bank is probably one of the most popular things to do in Madras today. In those days if 10 or 20 people came in a day we used to make 50 rupees. Last Pongal, 20,000 people came in one day. There were cops controlling them all. So, reptiles have become very popular.

And you have also used different tools over the years. You have made movies about reptiles.

Since we opened the croc bank, I suppose ten million people have come through over the years. But when you show a film, you have millions of viewers immediately seeing your film.

So, yeah, the films have made a big impression. The point is when you try to reach people with things like this, the message gets across. This is a part of the reason why movies are so successful with the whole reptile message.

You have been a consultant and an advisor for many conservation projects in diverse places. In India, Malaysia, Ethiopia, Indonesia. So, do conservation strategies differ widely between these places?

Vastly. My main job in Papua New Guinea was to help set up village crocodile farms. It's still a very remote place and the villages there are not connected by roads. The only way you can get from one village to anywhere is by boat or by

IN CONVERSATION

aircraft. They don't have any cash income because – what job can you do out there? There are a few forest products which they could sell but the most expensive product would be crocodile skin. So, it made sense to help them start a crocodile farm at the village level. Also, now, they take ownership of crocodile nests in villages. Crocodile eggs are a very valuable commodity as you can sell them to a large commercial farm which can put it in a hatchery. So, it's a mil-

lion-dollar industry benefiting the village people. It works well and the crocodiles are doing fine.

There are many thousands of crocodiles there, in comparison to India where crocodiles were very scarce in the 70s, when we started working. Then they made a heck of a big comeback.

But now there's something called human-crocodile conflict. So, that's the big thing now. I was just in Andamans a couple of weeks ago discussing this. I

thought – what an ironic situation. Some years ago, we were crying tears about crocs going extinct and now we are worried about them bouncing back and eating people.

So, it's interesting. It's a full circle and, now, the question is what comes after successful croc conservation?

Sarah Iqbal
e-mail: sarah.iqbalv@gmail.com

CURRENT SCIENCE

Display Advertisement Rates

India		Tariff (Rupees)*						
Size	No. of insertions	Inside pages		Inside cover pages		Back cover pages		
		B&W	Colour	B&W	Colour	B&W	Colour	
Full page (H = 23 cm; W = 17.5 cm)	1	18,000	30,000	25,000	40,000	35,000	45,000	
	2	33,000	55,000	47,000	76,000	65,000	86,000	
	4	62,000	1,05,000	92,000	1,46,000	1,25,000	1,65,000	
	6	90,000	1,50,000	1,25,000	2,00,000	1,75,000	2,25,000	
	8	1,10,000	1,87,000	1,68,000	2,65,000	2,30,000	3,00,000	
	10	1,35,000	2,25,000	1,98,000	3,15,000	2,70,000	3,60,000	
	12	1,80,000	3,00,000	2,50,000	4,00,000	3,50,000	4,50,000	
Half page (H = 11 cm; W = 17.5 cm)	1	10,000	18,000	Quarter page (H = 11 cm; W = 8 cm)	No. of insertions	Inside pages		
	2	19,000	33,000			B&W	Colour	
	4	35,000	62,000			1	6,000	12,000
	6	50,000	90,000			6	30,000	60,000
	8	60,000	1,10,000			12	60,000	1,20,000
	10	72,000	1,35,000					
	12	1,00,000	1,80,000					
Other Countries		Tariff (US \$)*						
Size	No. of insertions	Inside pages		Inside cover pages		Back cover pages		
		B&W	Colour	B&W	Colour	B&W	Colour	
Full page (H = 23 cm; W = 17.5 cm)	1	300	650	450	750	600	1000	
	6	1500	3000	2250	3500	3000	5000	
Half page (H = 11 cm; W = 17.5 cm)	1	200	325					
	6	1000	2000					

*25% rebate for Institutional members

Note: For payments towards the advertisement charges, Cheque (at par/multicity) or Demand Drafts may be drawn in favour of 'Current Science Association, Bengaluru'.

Contact us: Current Science Association, C.V. Raman Avenue, P.B. No. 8001, Bengaluru 560 080 or e-mail: csc@ias.ac.in

Last date for receiving advertising material: Ten days before the scheduled date of publication.

[The jurisdiction for all disputes concerning submitted articles, published material, advertisement, subscription and sale will be at courts/tribunals situated in Bengaluru city only.]