



Encyclopedia of Life

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Hungarian Meadow Vipers Podcast and Scientist Interview

Vipera ursinii rakosiensis

There's a snake in the grass—but the viper in this Hungarian meadow is more threatened than a threat, at least to people. As new ways of farming replace the old, these vipers have been pushed to the brink of extinction. Can conservationists change the hearts and minds of local farmers in time to preserve this critically endangered species? Ari Daniel Shapiro reports from Kiskunság National Park.

Transcript

Ari: From the Encyclopedia of Life, this is One Species at a Time. I'm Ari Daniel Shapiro.

Conservation can be a tough sell. Especially when the organism in question isn't cute and cuddly. Which is definitely the situation for the Hungarian meadow viper, or *Vipera ursinii rakosiensis*. Not even the babies are cute.

Halpern: That's just freshly born. There's another one here. You see?

Ari: Yeah.

Ari: Bálint Halpern is searching for baby vipers in the grasses of Kiskunság National Park, about 60 miles south of Budapest. Each snake has a dark brown zigzag running down its tan body. They're the length of a toothbrush, but when they coil up and hunker down, they're difficult to see.

It's been a productive morning for the female viper here in the grass – the mother. She's given birth to 7 or 8 little snakes. Halpern looks on approvingly. He's a biologist with a nature conservation NGO, and he's in charge of increasing the number of meadow vipers in Hungary. To bring them back from the edge of disappearing.

You see, before World War II, farmers hand-mowed the grasslands where the vipers lived, or used cattle to graze the grass. These techniques were gentle, and left behind burrowing holes and clusters of grass called tussocks – great places for vipers to hide and find food. But

starting in the late 1940s, during Communism, farmers were forced to join cooperatives and share state-owned machinery. This bulky farm equipment plowed up the grassland and chewed through the tussocks, leveling the fields and leaving the vipers vulnerable.

Halpern: The main problem for the vipers that the grassland was managed not in a way that is not, let's say, viper-friendly.

Ari: As a result, viper numbers plummeted in Hungary. By the late 90s, there were less than 500, compared to the thousands that used to slither around the grasslands here.

Halpern: Then we decided that probably a captive breeding effort should be part of the conservation effort.

Ari: The captive breeding center is quite the undertaking. In the last 9 years, almost 1400 snakes have been born here, in this field of grass that's divided into a grid of roofless, square enclosures. Each enclosure contains a handful of vipers. The juveniles hang out in the large squares, while the pregnant females spend time in smaller squares – which makes it easier for Halpern and his team to find the babies.

The newborn vipers are dropped into a terrarium, one by one. And then they're brought over to a shaded porch where they're weighed and photographed. Halpern holds up a small male viper. It opens its little, dangerous mouth.

Halpern: You see the fangs?

Ari: Mmmm. The males are usually more aggressive?

Halpern: Yes, yes, they are. It tries to bite.

Ari: Halpern releases the young snake quickly into the terrarium to keep it from biting him.

Halpern: Personally, I experienced at least 2 or 3 bites already. But...

Ari: It's not deadly?

Halpern: Not at all deadly. Not even really great health risk.

Ari: What is it – just hurts?

Halpern: It causes swelling and hurts. But the pain itself was not very great. It cured within one week.

Ari: Halpern's not afraid of being around these snakes. Unfortunately for the Hungarian meadow viper, though, there are still a good number of Hungarians who are fearful. Halpern's trying to do something about that.

Ari: Two raggedy dogs – a black one and a white one – come bounding across a neighboring field towards Halpern and me.

Halpern: Don't be afraid.

Ari: Oh, it's okay. It's good.

Botzek: Hey!

Ari: They belong to this guy – Jozsaf Botzek, a local cattle farmer.

He says he's never had any problems with the meadow viper, but he knows people who spread rumors about the snake. Neighbors who say the vipers are deadly, and that they're being brought into the park and nearby farms by the truckload.

A big part of Bálint Halpern's work is to educate the local people. To set them straight about their serpentine neighbors. Because once the meadow vipers are old enough, and outgrow the breeding center, they're released into these fields. And Halpern wants to be sure that everybody gets along.

So he's teamed up with the local park rangers to devise a farming scheme that doesn't work all the land all the time. They're asking the farmers to share the fields with the meadow vipers. And for the most part, says Halpern, they're doing it.

Halpern: I think, generally, the attitude of the local community is positive.

Ari: Halpern says the farmers even act as a kind of on-the-ground intelligence. If they see someone suspicious walking around, they phone up the ranger. Now, not all the farmers support Halpern's initiatives.

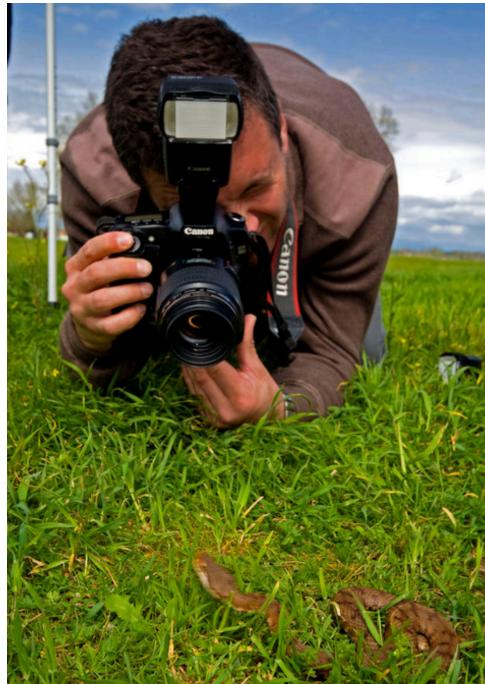
Jozsaf Botzek says there are those who prefer to be independent. Who don't like being told what to do. Increasingly, though, attitudes are changing. More people are thinking like Botzek – who realizes he can turn a profit as a farmer and be mindful of the meadow vipers.

Botzek says he lives his life in concert with nature – he shares his days with the vipers. He says they all go to sleep together, and they all wake up together. And if Bálint Halpern has his way, many more meadow vipers will be waking up one day soon.

Ari: Our series, One Species at a Time, is produced by Atlantic Public Media in Woods Hole, Massachusetts. I'm Ari Daniel Shapiro.

Meet the Scientist

Meet Bálint Halpern, the scientist featured in the Hungarian Meadow Viper podcast:



Where do you work?

I am biologist, currently working as LIFE-project manager at an NGO, MME BirdLife Hungary.

What do you study?

All our activities focus on the conservation effort of Hungarian meadow viper (*Vipera ursinii rakosiensis*) including actions like captive breeding with genetic screening, reintroduction with radio-tracking, habitat reconstruction with acting against invasive plant species and organising PR-activities in order to explain our effort and increase acceptance of subject species and snakes in general.

What are three titles you would give yourself?

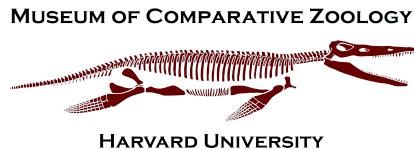
Conservation biologist, Herpetologist, Scuba diving instructor.

What do you like to do when you are not working?

I like to discover underwater environment, doing scuba diving for 20 years, mainly in the Adriatic and Red Sea. As a sport, futball is the name of the game, playing at a lower division amateur club: BEAC.

What do you like most about science?

The complexity of a conservation effort never let you bored, providing great opportunities to use and test latest developments in science and technology, creating a network of international collaborations. I am really interested in conservation oriented use of genetic methods, photography and remote sensing.



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