

**Henrik Cox - Head of Product, Conservation X Labs**  
**Forging an equitable, digital future for all**

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I'd love to start with a 30 second background of Conservation X Labs as a whole. We are a nonprofit with the goal of preventing the sixth mass extinction. We do so with a focus on new technologies and market-driven solutions.

One side of the house is built around challenges and prizes, and lifting up teams around the world with expertise, guidance, and funding around particular conservation needs such as artisanal scale mining, microfibers in the ocean, and forest wildfires.

On the other side is our internal engineering with teams working on molecular biology for one solution and artificial intelligence on another.

The one I'm sharing with you today is our AI solution that we've called Sentinel.

The inspiration for Sentinel started right before the pandemic when we were reaching out to as many conservationists around the world to find out what the most common issues were that got in the way of these groups achieving their impact goals.

The one that came up time and time again was the ton of environmental data that is collected all day, every single day. Today, conservationists often have to manually process hundreds of thousands of photos every few months to understand what is happening, which means we're missing out on time-sensitive situations like poaching, identifying the presence of invasive species, endangered wildlife population counts, disease spread, the list goes on.

The second issue we faced as we started to design a solution to address this is the fact that AI is a powerful and scary technology that can get incredibly complicated very quickly, and worlds of AI and wildlife conservation colliding was not a very big space. So we had to start thinking of how to design and build this system in a way that would be incredibly intuitive and accessible.

Today, Sentinel is a full end-to-end solution that uses AI on smart cameras to process photos and videos as that data is captured in the wild. We are then able to send back the filtered useful information to anyone who needs it over wifi, cellular, and satellite networks, and that final one, satellite, has opened the doorway to deploying these devices in some of the most remote locations around the world.

Since this project started, we've been able to deploy across the US and in Costa Rica. We have an extensive list of amazing partners, and I'd like to share a few examples of what we've been working on.

Spotting endangered jaguars and poachers in Costa Rica, invasive rodents in Hawaii, individual reidentification of gorillas in the Congo through video, and also through video, identifying symptoms of a neurological disease in big cats across the US. These examples are just us getting started, and we're gearing up for more deployments to come later this year, and the future beyond.

To wrap up, we're hoping this is the kind of work that changes how people think about conservation, and that protecting wildlife and habitats doesn't have to be something that stands in the way or slows down progress economically and socially for everyone involved.