

Extinction is Not Forever: Q&A With The Long Now Foundation's Ben Novak

Zach Weissmueller | Jun. 24, 2015 12:51 pm

Extinction Is Not Forever: Reviving the Passenger Pigeon...  



"Conservation has done 40 years of 'Save the pandas, save the rhinos; if they go extinct, everything's going to hell.' It's been a lot of doom-and-gloom, without a lot of emphasis on, 'Here's a problem. How do we solve it?'" says Ben Novak, lead researcher on a project aiming to bring back the passenger pigeon from extinction.

Novak's work is part of a broader campaign of "de-extinction" being funded by The Long Now Foundation, a nonprofit organization devoted to fostering, in its own words, "long-term thinking and responsibility in the framework of the next 10,000 years." The Long Now wants to bring back other species, too, and even has a team devoted to de-extinctifying the woolly mammoth.

Novak and his team are studying DNA from taxidermied museum specimens and planning to insert key genes into the genomes of band-tailed pigeons.

"The bird we create will, hopefully, be a bird that looks like a passenger pigeon, acts like a

passenger pigeon, could fool anybody into thinking, 'That's the original passenger pigeon.' But at the genetic level, it's a band-tailed pigeon that's been adapted into being a passenger pigeon," says Novak. The process will also involve teaching the birds to behave like passenger pigeons did, possibly by pairing them with homing pigeons dyed to look like passenger pigeons.

The last passenger pigeon died in 1914. So why bother bringing back a bird that clearly couldn't cut it in the modern world? Novak says his primary motivation creating a more robust ecosystem by reintroducing greater biodiversity.

The passenger pigeon existed in million- or even billion-bird flocks that Novak believes had a profound effect on the ecosystem of the Eastern United States when they would roost and feed in trees, breaking branches and clearing out huge tracts of forest along the way. These massive "disturbance cycles" would clear the way for new growth and reinvigorate the ecosystem in the same way that controlled burns of forest do today.

Novak says that undertaking research on projects like this is difficult in a world filled with anti-GMO hysteria and notes that the project has already drawn ample criticism from individuals and groups who fear a *Jurassic Park*-esque catastrophe on a global scale.

"I got an email telling me to 'Pull out now before our monster pigeon destroys the world,'" says Novak.

In response, he points out that humans successfully wiped out the species in the 19th century using muzzle-loaded shotguns and nets. In an age of satellite GPS tracking, he says we likely have little to fear from the pigeons.

A critique he takes much more seriously comes from certain segments of the conservation movement that see "de-extinction" as a flashy distraction from more traditional, proven methods of saving endangered species and reviving ecosystems. But Novak rejects that sort of zero-sum thinking and believes he's only bringing another potential solution to the table.

"The real, moral fiber of the conservation movement for the past 40 years has been, 'Extinction is forever, so prevent it,'" says Novak. "In my mind, 'extinction is forever' should've never been the foundation of motivation to begin with, because it implies there's a finite end to solutions."

Watch the video above for the full interview with Novak, and scroll down for downloadable versions. Subscribe to Reason TV's [YouTube channel](#) for daily content like this.

Approximately 10 minutes. Produced by Zach Weissmueller. Shot by Alexis Garcia. Music by Chris Zabriskie. Additional stock footage drawn from the Creative Commons.