

New Peruvian bird discovered: The vivid yellow Inti tanager

November 11 2021, by Sarah White



The Inti tanager. Credit: Ryan Terrill

After persuading his parents to bring home a bird feeder from his relatives' hardware store, Kevin Burns became captivated by watching his avian visitors. He would flip through pages in a bulky encyclopedia to know which kind of bird was flitting about.

Now an ornithologist and professor of biology at San Diego State

University, Burns's childhood fascination led him and his collaborators to identify a new bird, *Heliotrupis oneilli*, not previously described in any field guide.

The bird's common name, the Inti tanager, is named after the word for sun in Quechua, the Indigenous language of the tropical mountainous area it inhabits, befitting of its vivid yellow feathers and tendency to sing during midday.

Burns's colleagues from Louisiana State University first spotted the bird while leading a birdwatching tour over twenty years ago, in the foothills of the Andes mountains in Peru. But they were not able to collect enough [genetic material](#) to analyze until 2011 when they found additional Inti tanagers breeding in nearby Bolivia during the rainy season.

Burns and his graduate students then were able to analyze nearly 5,000 genes to understand how this bird fit into the puzzle of over 300 other species of tanagers, the second most diverse bird family.

When comparing the Inti tanager to species that shared the most genetic similarities, only some had yellow coloring and none had a bright orangey-pink beak. It is also very unusual for tanagers to migrate between tropical regions. The [genetic analysis](#) combined with the unique appearance and behaviors led to the decision to propose it as not only a new species but also a new genus.

When asked why a [new genus](#) and species of bird is important, Burns answered, "If we want to sustain ecosystems, we have to know all the players."

He likened it to a mechanic trying to get a car going without knowing all the pieces of a car and what they do.

"We should care about biodiversity for a lot of reasons—philosophical, aesthetic reasons, but also practical reasons," said Burns. "All those creatures, birds or insects, they've been evolving for millions of years and they've been solving problems for millions of years that we might need to solve."

Additional unidentified species of flora and fauna may contain chemical compounds useful for treating disease or have special adaptations that can guide engineers in building more efficient machines based on evolution.

"Birds are very well-known compared to other organisms. You'd think there's not that much left to discover," said Shannon Hackett, the associate curator of [birds](#) for the Negaunee Integrative Research Center at the Field Museum in Chicago, who was not involved in identifying the Inti tanager. "Some of the best ornithologists have been to these places all the time and never saw this bird."

"There's always the idea that you could be that person, that you could capture lightning in a bottle. It fulfills the childhood curiosity to figure out something that nobody knew the day before and they did it with a pink-beaked bird," Hackett added.

The identification of the Inti tanager was reported in a paper that was recently published in *Ornithology* and the genetic analysis research was supported by the National Science Foundation.

More information: Daniel F Lane et al, A new genus and species of tanager (Passeriformes, Thraupidae) from the lower Yungas of western Bolivia and southern Peru, *Ornithology* (2021). [DOI: 10.1093/ornithology/ukab059](https://doi.org/10.1093/ornithology/ukab059)

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