

Tiny tree snails make historic comeback 40 years after vanishing from the wild

July 23 2026, by Sayan Tribedi



A captive-bred *Partula tohiviana* tree snail (right) and a newly born juvenile (left) move across a green leaf. The image highlights the species' successful reproduction, a key milestone in its recovery after decades of conservation breeding and reintroduction efforts. Credit: ZSL / Partula Snail Program

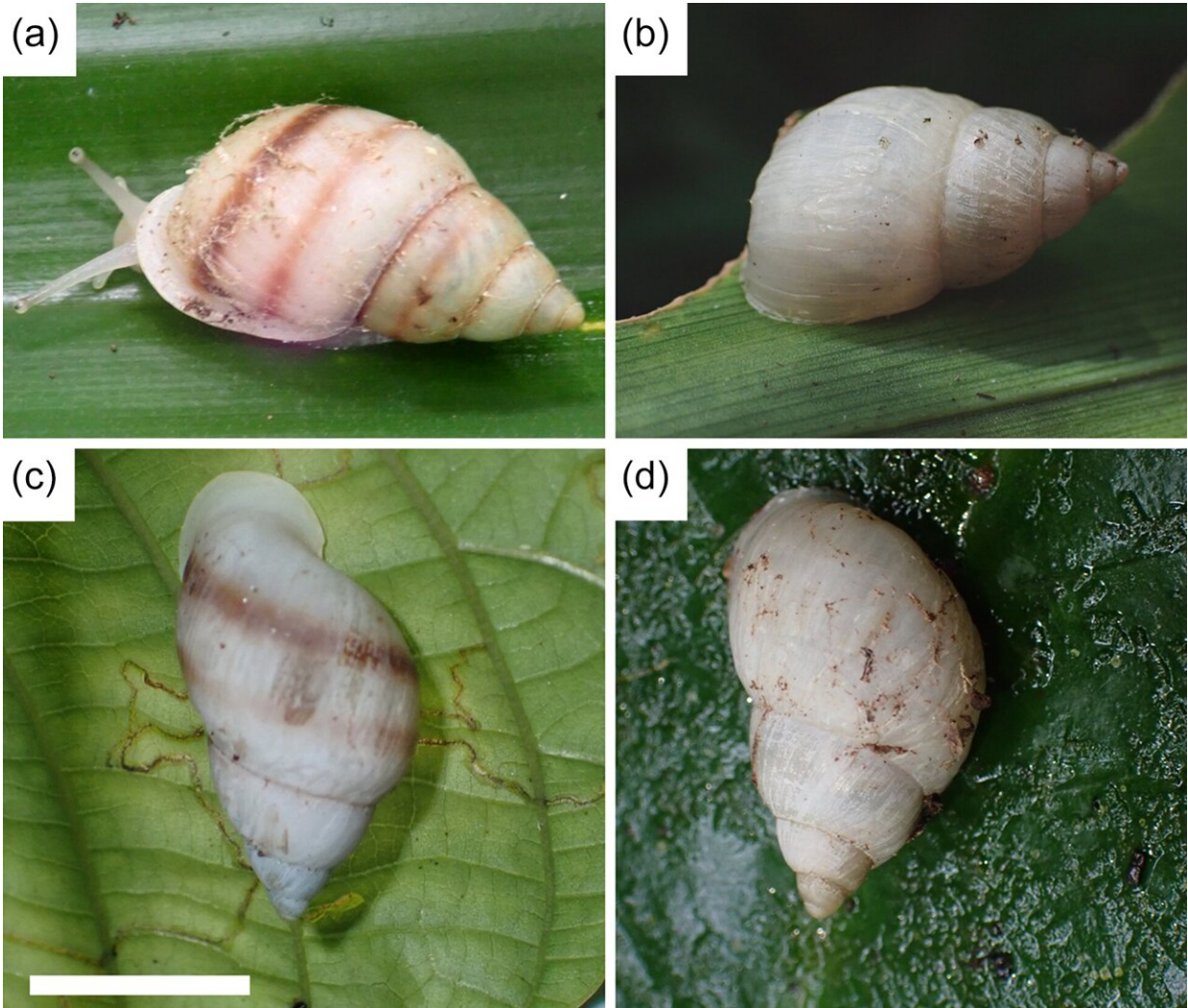
After more than a decade of work to return captive-bred Partula snails to the forests of Moorea, scientists finally found the evidence they had been hoping for. In 2024, scientists evaluating a release site found the first confirmed wild-born population of Tohivea tree snails. For four decades, the peanut-sized snails survived in zoos after they vanished from the wild in the 1980s.

The rare snail species' return demonstrates an incredible conservation achievement, a first for any invertebrate species previously deemed "Extinct in the Wild" being re-established outdoors. Yet the story began with one of conservation's most infamous blunders.

Partula snails were once commonly sighted in Moorea's wet forests and were highly prized for their shells. The snails also played an important ecological role, recycling leaf litter, and became known as Darwin's finches of the snail world, as they have adapted to different environments.

But in the 1980s, an introduced rosy wolfsnail (*Euglandina rosea*) aimed at controlling the introduced giant African land snail began targeting the native tree snails instead.

The New Guinea flatworm, *Platydemus manokwari*, was the second invader. By the 1990s, Partula had disappeared from the wild, existing only in zoos and collections worldwide. That grim history set the stage for the decade-long reintroduction effort [described](#) in a new study, published in *Oryx*.



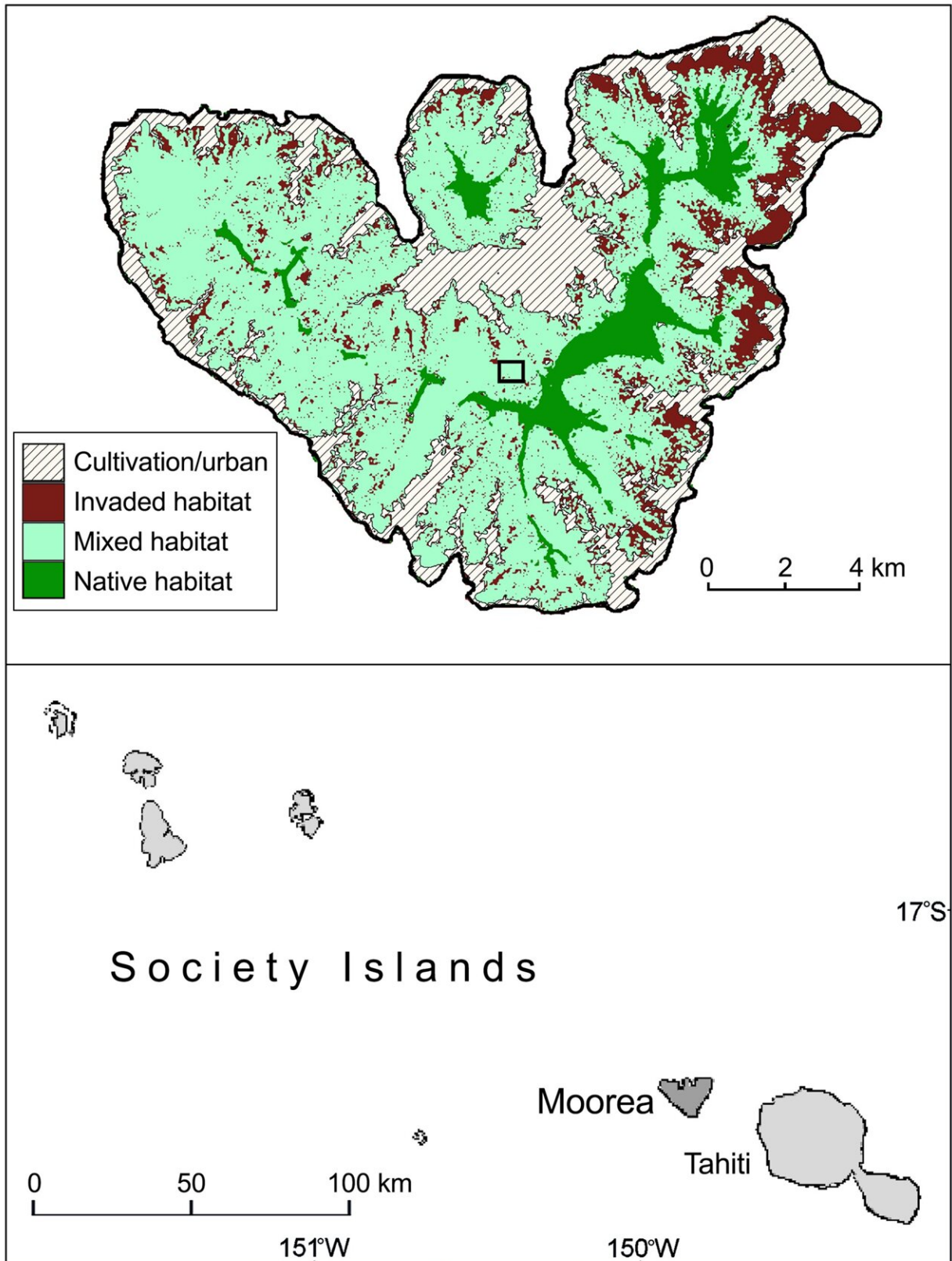
Four live, wild-born adult *P. tohiveana* individuals found in September 2024: (a) Adult 1: mature adult, 17 September 2024, (b) Adult 2: young adult with partially developed shell lip, 18 September 2024, (c) Adult 3: mature adult, 21 September 2024, (d) Adult 4: young adult, 21 September 2024. Scale bar 1 cm. Credit: Justin Gerlach et al, Re-establishment of *Partula tohiveana* tree snails in French Polynesia after 40 years of extinction in the wild, *Oryx* (2026). DOI: 10.1017/s0030605325000353

Breathing life in captivity

The conservation biologists countered by creating "arks" for the snails. In the early 1990s, the remaining *Partula* snails were airlifted to zoos in London, Edinburgh, St. Louis, Detroit, and elsewhere. These slow-breeding animals produce only one offspring every 4–6 weeks.

For decades, dozens of species have been maintained alive in "conservation collections," but maintaining snails in tanks is no replacement for the native forest. Since 2015, field teams have begun releasing thousands of these captive-bred snails back into the wild of Moorea and Tahiti.

The snails were placed on trees and thick vegetation, in particular, the native pandanus *Freycinetia demissa*, in hopes that this habitat would help protect them from predation on the ground. The size of the snails is very small (1–2 cm long), so each snail had a dot of UV-reflective paint applied. At night, this paint glows under UV light, allowing for the identification of snails during their survey. Every year, the snails (more than 21,000 snails) were released into the wild.



(a) The Afareaito valley on Moorea Island is home to the release area (black rectangle) of captive-bred *Partula tohiveana*. The habitat categories are as follows: native habitat is primarily composed of native plant species, invaded habitat is dominated by introduced (non-native) plants, and mixed habitat is intermediate. (b) Location of Moorea Island in the Society Islands, French Polynesia. Credit: *Oryx* (2026). DOI: 10.1017/s0030605325000353

Discovery of Wildborn snails

Gradually, the first signs of success emerged. By 2018, lone wild-born adults showed up in surveys, but it wasn't until September 2024 that a true breeding population was confirmed. Over just a few days, surveyors found four unmarked adult *Partula tohiveana* and 13 juvenile snails at a release site.

These snails were "born in the wild" from parents reared in zoos. As the study notes, this resident group of adults and juveniles "demonstrates that captive-bred *Partula* can be re-established in the wild." The tiny reintroduced snails adapted well enough to their moist forest home to mate and produce offspring a generation later.

"This is a landmark moment for *Partula tohiveana*," says [ZSL](#) curator Paul Pearce-Kelly. "Though little, these snails have great cultural, scientific, and conservation value. They've been studied for over a century to understand evolution, and most recently, they're a model for hundreds of endangered island species. Indeed, the rediscovery attracted international attention—it even prompted the IUCN to change *P. tohiveana*'s status from "Extinct in the Wild" to Critically Endangered in 2025.

THE JOURNEY OF *PARTULA TOHIVEANA*



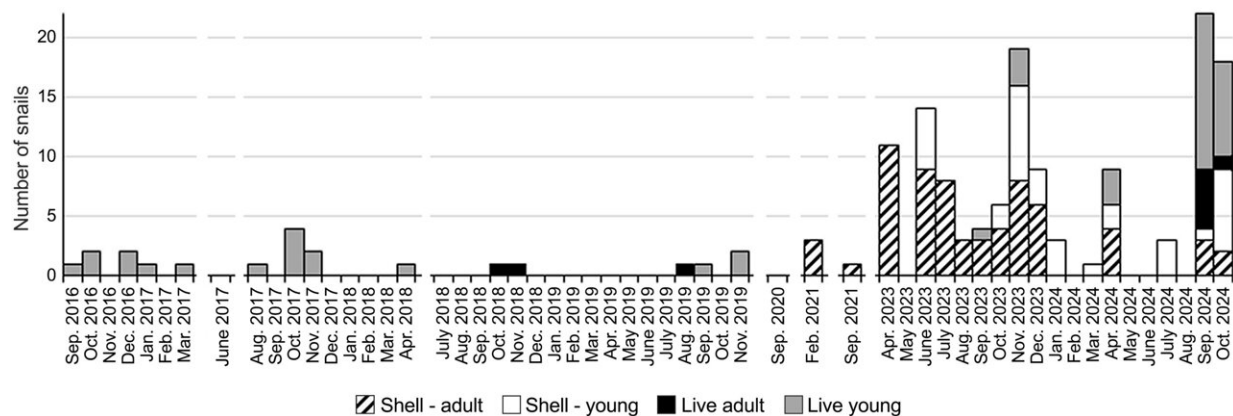
Simple timeline illustrating the conservation journey of *Partula tohiveana*: wild population disappears in the 1980s, decades of captive breeding in zoos, large-scale reintroductions beginning in 2016, and the discovery of a wild-born, multi-generational population on Moorea in 2024, marking the species' return to its natural habitat. Credit: Generated by AI for illustrative purposes

Next steps?

Of course, finding a dozen young snails doesn't guarantee long-term survival. The population is still tiny, and threats remain. Invasive flatworms have been observed eating the released snails, while a few wolfsnails still linger in the valley. Dense vegetation also makes it difficult to know how many snails have spread beyond the release sites.

As the researchers caution, "multiple wild-born adults do not necessarily constitute a viable population ... this is merely the first step towards full recovery." Their focus now is on whether the snails can continue breeding and expand without constant human help.

Nevertheless, the more general implications are hard to ignore. The comeback of this tiny snail shows that the world's least flashy animal can recover over decades of coordinated conservation effort. Conservation biologist Justin Gerlach, lead author of the study, states, "We are hopeful that the remaining Extinct in the Wild *Partula* and other species can also be re-established."



Numbers of individual wild-born *Partula tohiveana* found as dead shells and live individuals during 2016–2024. Breaks indicate periods without monitoring.
Credit: *Oryx* (2026). DOI: 10.1017/s0030605325000353

Dozens of zoos and conservation agencies across the world participated in the campaign, which showed that zoo-based breeding can pay off in the wild.

However, there is also a warning in the tale. The rosy wolfsnail was brought to eliminate a pest but ended up destroying the native snails of Moorea—an indication of what could happen using biological control without proper planning.

For now, *P. tohiveana* is a symbol of hope. A species once "written off" is living among the leaves again, thanks to patient breeding and relentless fieldwork. It's a vivid reminder that even after 40 years "off the radar," nature can still surprise us—if we give it a chance.

More information: Justin Gerlach et al, Re-establishment of *Partula tohiveana* tree snails in French Polynesia after 40 years of extinction in the wild, *Oryx* (2026). [DOI: 10.1017/s0030605325000353](https://doi.org/10.1017/s0030605325000353)

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