

# Extinct or just missing? The curious case of the native blue-grey mouse

April 11 2022, by Tyrone Lavery, Chris Dickman and David Lindenmayer

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Credit: Penny Gale, Fabriculture, Author provided

From all accounts, Australia's blue-gray mouse was a charming little creature. The famous British zoologist Oldfield Thomas of London's Natural History Museum first described the species in 1910 and named it *Pseudomys glaucus*.

Within half a century, the [species](#) had seemingly disappeared, leaving

behind only three scientific specimens. Since then, two of these have been lost.

But is the mouse extinct, or just extremely hard to find?

We decided to explore old museum specimens and correspondence in the hope of finding one of Australia's most enigmatic extinct mammals. We have not rediscovered it yet—but our [new research](#) has shown us where to look.

## **The importance of questioning extinction**

Biologists have rediscovered a number of Australian species long thought extinct. The [bridled nailtail wallaby](#) was rediscovered when a fencing contractor and his wife matched one they'd spotted in the wild to a picture in Women's Day magazine.

The desert bettong was lost, found, and is now [lost again](#). [Gould's mouse](#) was found despite being thought extinct for over a century. It was hiding in plain sight thousands of kilometers away from its original range.

These efforts matter because Australia's [black book](#) of animal extinctions has too many entries already, with 33 species of mammals lost. That's the worst mammal [extinction](#) record in the world. Our native mice are one group suffering the most.



MUS GOULDI, Waterh.

*Storck, and H.C. Fischer, del. et lith.*

*Hollmanstedt & Walters, imp.*

Gould's mouse, feared extinct, is now known to be the same species as the Shark Bay Mouse. Credit: John Gould/Wikimedia, [CC BY](#)

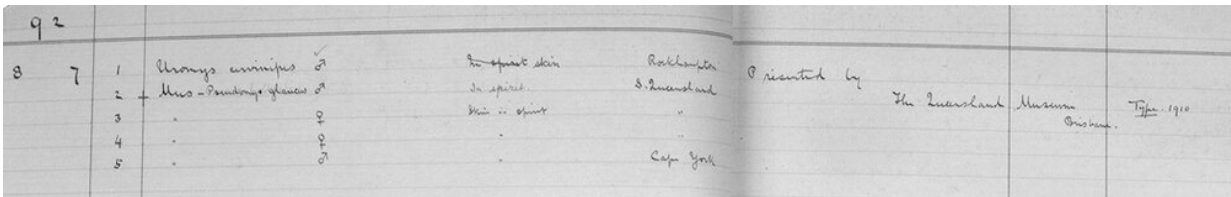
## On the trail of the blue-gray mouse

To have a chance of rediscovery, we need to know as much as possible about distribution, [habitat](#) and the circumstances under which a species was last seen by humans.

The blue-gray mouse has a lower profile than Australia's better-known extinctions, such as the thylacine, the Christmas Island Pipistrelle, a microbat, and what might have been the first victim of human-induced climate change: the [Bramble Cay melomys](#).

To find out more, we went back to the beginning. The three blue-gray mouse specimens Thomas examined arrived in London in 1892 as a donation from the Queensland Museum in Brisbane. The holotype specimen (an example nominated to define a species) of this mouse was amongst a group of five donated rodents. Four had originally been entered in the register as "*Mus*" (the house mouse genus which at the time was regularly given to unidentified rodents) from "S. Queensland" and "Cape York."

Jotted next to the holotype was "*Pseudomys glaucus*" and "Type 1910," in text that looked to have been added later. This specimen in London is now the only physical evidence we have that the blue-gray mouse ever existed. The other four rodents are missing.



In 1892, five rodent specimens from the Queensland Museum were registered at the Natural History Museum, London. One of these was the blue-grey mouse holotype from "S. Queensland." Credit: Trustees of the Natural History Museum, London

Later we found a tantalizing clue to the existence of a third specimen from New South Wales in the 1957 book "The Furred Animals of Australia" by Australian Museum curator Ellis Le G. Troughton.

Here, too, the the details were frustratingly brief. A dried skin. Received in 1956 from "B.N. Parkins of Cryon." Specimen missing.

## **Floods, mouse plagues and a bushie's keen eye**

We found a link between the uncommon surname Parkins and the property Coorallie at Cryon, a small region near the famous opal mining town of Lightning Ridge.

Threatened species artist and friend Penny Gale, who was originally from nearby Walgett, told us there was a Bob Neville Parkins, who lived at Coorallie and was able to put us in touch with his daughter, Jill Roughley.

Jill remembered the entire episode clearly. She had kept the original letter her father received from Troughton, the curator, thanking him for the specimen. And she remembered the circumstances of how her father found the rare blue-gray mouse.



The blue-grey mouse (*Pseudomys glaucus*) holotype skull (1892.8.7.2), Natural History Museum, London. Credit: Chris Dickman

In October 1955, record rains hit the region. By March 1956, there was major flooding. Once the rains eased, grasses and crops grew strongly. The conditions were perfect for a plague of introduced house mice.

At Coorallie, the swarms of mice broke into the stock feed rooms to gorge themselves. Desperate to keep the numbers down, Parkins set a steel drum on its end and poured grain into it to make an effective trap.

One night, a blue-gray mouse must have crept atop the drum and dropped inside. When Bob checked the trap, there it was, alongside hundreds of house mice.

Jill told us her dad was a typical "bushie." He was acutely observant of what was happening in the environment.

Likewise, Jill recalled Coorallie in the 1950s with remarkable detail. She told us the property was on plains of native Mitchell grass, which had reached the height of a horse's stirrups by early 1956. As the mouse population ballooned, so did their predators. Red foxes arrived in numbers, posing a major threat to the blue-gray mouse.



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*The Australian Museum*  
*Sydney* 9th July, 1956.

Mr. B. N. Parkins,  
Coorallie,  
Cryon, NSW.

Dear Sir,

At first opportunity, on receiving the skin of a mouse forwarded on by the Taronga Park Trust, I am writing to let yourself and local friends know that the skin almost certainly is that of one of the "lost species" of native Australian mice. It was described as new to science by the mammal-authority at the British Museum, from a single specimen sent there in 1892 from Brisbane. I quote the following from my book "Furred Animals of Australia";-

"Blue-grey Mouse (*Gyomys glaucus*) ... 'South Queensland' was the only locality attached to the original (1892) specimens. This rare mouse of uncertain locality differs from other north-eastern native-mice by its bluish-grey coloration, in which it resembles the ashy-grey species of Western Australia. The combined length of the head and body is about  $3\frac{3}{4}$  in; the tail slightly longer."

In the "old days" the area of the Darling Downs and borders of Qld/NSW were not clearly understood, and it seems obvious that you and your friend have been responsible for the re-discovery of a rare native species. I am sure you will both understand my enthusiasm about it, and do hope you will both examine all trapped and poisoned mice in future, and interest all local contacts in doing so. The species is so easily recognized by its ashy-grey colour, with bluish underfur, and the females in this and all native species have only four teats in the groins (2 pairs) instead of 10 (5 pairs) in the introduced pest.

These native mice rarely enter houses, but may sometimes be found in post-holes unfilled over-night. Some Museum collector have dug pitfalls about 9in sq, and 3ft deep in sandy-loam or "heath-country", and as many as 10 mice were found in the early

(Over)



Correspondence in 1956 from mammal curator Ellis Le G. Troughton of the Australian Museum, Sydney is precious evidence the blue-grey mouse was found in NSW. Credit: Jill Roughley

Jill's memory has given us vital clues to where the mouse might still be hanging on. Mitchell grass, rural New South Wales, heavy rains. Given the mouse plagues of recent years, now might be a good time to look again.

Does one [mouse](#) species matter, amongst all the continent's species? We believe so. And we hope the clues we've uncovered could see Australia's sad list of extinctions drop by one, rather than keep going up.

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