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Newly Discovered Cave Weta Species Endangered by Coal Mining

By John R. Platt | December 11, 2012



If you have seen any of Peter Jackson's movies, such as this week's release of *The Hobbit: An Unexpected Journey*, then you have probably noticed the logo for the special effects company Weta Workshop, which works on most of the director's New Zealand-based projects. The workshop is named after a bunch

of endemic New Zealand insects that look, at first glance, like crickets or grasshoppers on steroids. Weta consist of about 70 species of the largest and heaviest flying insects in the world. Some giant weta species — “very cool, prickly little monsters,” as Weta Workshop puts it — weigh in at up to 30 grams and boast bodily lengths of up to 10 centimeters.

A newly discovered member of the group—the Denniston white-faced cave weta—isn't quite that big or monstrous. In fact, the scientists who found and tentatively named the species (it hasn't been given an official taxonomic name yet) don't know how big the species grows, because only juvenile insects were found. But they do know that its only habitat could soon disappear.

This newest weta was discovered on the Denniston Plateau on the sparsely populated west coast of New Zealand's South Island. The plateau receives an amazing six meters of annual rainfall, creating unique rock formations that are home to many rare and endangered species. The 190-hectare area is slated to be converted into an [open-cast coal mine](#) that could increase the country's coal exports by 63 percent but which conservationists say would destroy the habitat and its unique denizens.

The Denniston white-faced cave weta was found during a four-day “[Bioblitz](#)” in March that identified more than 500 confirmed species on the plateau and another 219 unconfirmed species. Among the hundreds of species was the new weta, which bears a mostly black body, a distinctive white band behind its head and leg spines unlike other weta species. “It just stood out,” Massey University (M.U.) associate professor [Steve Trewick](#) said in a [prepared statement](#). “We haven't seen anything with that appearance and coloration.”

Trewick, who led the expedition along with fellow associate professor [Mary Morgan-Richards](#), also tested the new weta's DNA, which proved to differ from other known species. “This weta might occur elsewhere as well as Denniston, but what it highlights is that destroying distinctive habitat is likely to destroy biodiversity even before we know it is there,” Trewick said. “If we're destroying biodiversity before we've even identified it, we're clearly following the wrong strategy.”

The Bioblitz was supported by the conservation organization [Forest & Bird](#), which seeks to protect the area from the planned coal mine. M.U. is also currently undertaking a project—called [Beta Weta Geta](#)—to classify the taxonomy and biodiversity of all of New Zealand's

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The largest weta species, the Little Barrier Island giant weta (*Deinacrida heteracantha*) by William Stovell and Zoe Stone via Wikipedia under Creative Commons license

cave weta species.

Photo: Denniston white-faced cave weta courtesy of Massey University


About the Author: Twice a week, John Platt shines a light on endangered species from all over the globe, exploring not just why they are dying out but also what's being done to rescue them from oblivion. Follow on Twitter [@johnrplatt](#).

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