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ABORIGINAL POPULATIONS USED BOGONG MOTHS AS A FOOD SOURCE 2,000 YEARS AGO, RESEARCHERS FIND

The first conclusive archaeological evidence of insects as a food source in Australia has been discovered by a group of archaeologists and traditional land owners.

Led by Monash University and the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC), the researchers found food remains of Bogong moths on a stone tool in a cave in the foothills of the Australian Alps in Victoria.

The microscopic remains were found on a small, portable grindstone that would have been carried around by its owners during travels.

The group can also lay claim to discovering the first conclusive archaeological evidence of insect food remains on stone artefacts anywhere in the world.

The findings provide insights into the antiquity of important Aboriginal dietary practices that have until now remained archaeologically invisible.

Published in the journal *Scientific Reports*, the group's paper, *2000 Year-old Bogong moth (Agrotis infusa) Aboriginal food remains, Australia*, outlines how they found microscopic remains of ground and cooked Bogong moths on a recently excavated grindstone from Cloggs Cave, in the southern foothills of the Australian Alps.

Cloggs Cave is located 72m above sea level in the lands of the Krauatungalung clan of the GunaiKurnai Aboriginal peoples of southeastern Australia.

The moths were considered by Aboriginal populations from multiple clans and language groups to provide an ample food source due to their large numbers and high fat content.

An array of different methods were used to create meals from the moths, from cooking them in a fire or grinding them into cakes or a paste which could then be smoked and preserved for weeks.

Early settler writings from the 1830s-1850s reported congregations of Aboriginal groups took advantage of the annual migration of the moths in and near the Australian Alps.

While many Aboriginal groups from SE Australia have oral histories of their ancestors eating Bogong moths, no reliable archaeological evidence of Bogong moth exploitation or processing has ever been discovered, signalling a major gap in the archaeological history of Aboriginal groups, researchers said.

"A lack of archaeological studies of insect food remains has resulted in a downplay or omission of the use of insects from archaeological narratives and deep-time community histories," said coordinating archaeologist and Monash University's Professor Bruno David of the Monash Indigenous Studies Centre.

“Food is an expression of culture: think of snails and frogs’ legs and we think of French culture, we associate spaghetti with Italy. The absence of an iconic Aboriginal food from the archaeological record is tantamount to the silencing of Aboriginal food cultures. Now we have a new way of bringing it back into the story.”

The group excavated a small grindstone in 2019 and independent archaeologist and pharmacologist Birgitta Stephenson then studied the grindstone under the microscope, finding damaged and partly carbonised Bogong moth wing, collagen and moth structures using adapted biochemical staining protocols.

The remains were found to be between 1,600 and 2,100 years old.

The researchers said this indicates Bogong moths would have been harvested, prepared and cooked by up to 65 generations of Aboriginal families.

The Bogong moths were used for food during their summer feasts, as documented in the 1800s and in current oral traditions and Aboriginal groups coordinated social congregations with the arrival of the Bogong moths during the warmer months.

“The archaeological visibility of Bogong moth remains on stone tools therefore now helps archaeologists better understand how people moved across the landscape in the deeper past,” said Professor David.

“It’s important to note, however, the cessation of the annual Bogong moth festivals within three decades of colonial intrusion in and surrounding the Australian Alps until their revival in the twentieth century, coupled with what has been until now an inability to recover definitive archaeological traces of Bogong moths, has denied their inclusion in deep-time Aboriginal histories.”

Russell Mullett, GunaiKurnai Elder and GLaWAC Registered Aboriginal Party Manager, said the project reflected a severed cultural history.

“Historical records are witness to our people going to the mountains for the Bogong moths but this project tells us that it also happened in the deeper past,” he said. “Because our people no longer travel to the mountains for Bogong moth festivals, the oral histories aren’t shared anymore, it’s a lost tradition.

“The world has become a different place, but for 2,000 years this grindstone has been sitting idle with a story to tell. A single artefact has sparked the rebirth of knowledge that helps to tell the story of the GunaiKurnai people.”

Archaeological excavations were first undertaken in 1971–1972, followed by a new program of excavations in 2019–2020, initiated by GLaWAC and directed by Professor David.

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