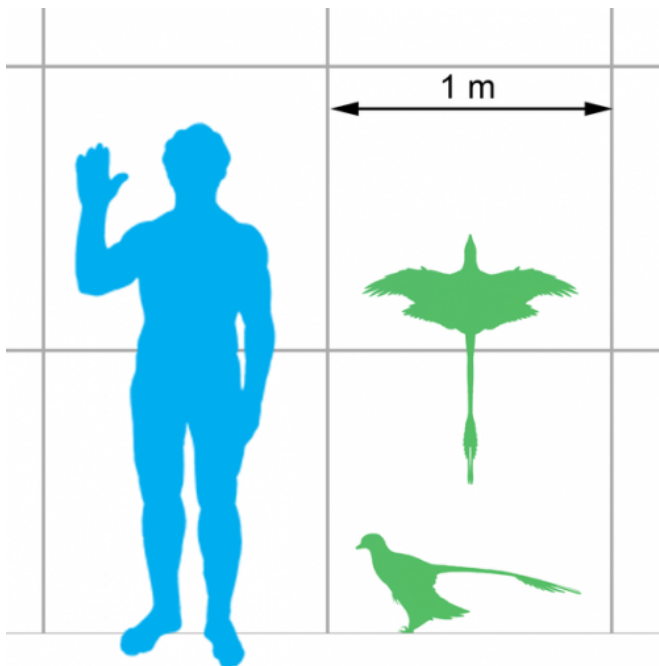


Fish was on the menu for early flying dinosaur Microraptor

22 April 2013



Size of the dinosaur Microraptor compared with a human. Scale bar = 1 meter. Credit: Matt Martyniuk

University of Alberta-led research reveals that Microraptor, a small flying dinosaur was a complete hunter, able to swoop down and pick up fish as well as its previously known prey of birds and tree dwelling mammals.

U of A [paleontology](#) graduate student Scott Persons says new evidence of Microraptor's hunting ability came from fossilized remains in China. "We were very fortunate that this Microraptor was found in [volcanic ash](#) and its stomach content of fish was easily identified."

Prior to this, [paleontologists](#) believed microraptors which were about the size of a modern day hawk, lived in trees where they preyed exclusively on small birds and [mammals](#) about the size of

[squirrels](#).

"Now we know that Microraptor operated in varied terrain and had a varied diet," said Persons. "It took advantage of a variety of prey in the wet, forested environment that was China during the early Cretaceous period, 120 million years ago."

Further analysis of the fossil revealed that its teeth were adapted to catching slippery, wiggling prey like fish. Dinosaur researchers have established that most meat eaters had teeth with serrations on both sides which like a steak knife helped the predator saw through meat.

But the Microraptor's teeth are serrated on just one side and its teeth are angled forwards.

"Microraptor seems adapted to impale fish on its teeth. With reduced serrations the prey wouldn't tear itself apart while it struggled," said Persons. "Microraptor could simply raise its head back, the fish would slip off the teeth and be swallowed whole, no fuss no muss."

Persons likens the Microraptor's wing configuration to a bi-plane. "It had long feathers on its forearms, [hind legs](#) and tail," said Persons. "It was capable of short, controlled flights."

This is the first evidence of a flying raptor, a member of the Dromaeosaur family of dinosaurs to successfully prey on fish.

The research was published April 22 in the journal *Evolution*.

Provided by University of Alberta

APA citation: Fish was on the menu for early flying dinosaur Microraptor (2013, April 22) retrieved 11 November 2019 from <https://phys.org/news/2013-04-fish-menu-early-dinosaur-microraptor.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.