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Bird caught in amber 100 million years ago is best ever found

By **Michael Le Page**

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Insects are not the only creatures that got stuck in amber during the time of the dinosaurs. Bits of ancient birds and dinosaurs have been found too – and now the most complete bird yet has been found.

A 100-million-year-old chunk of amber found in Myanmar contains the head, neck, wing, tail and feet of a hatchling. It was just a few days old when it fell into a pool of sap oozing from a conifer tree.

"It's the most complete and detailed view we've ever had," says Ryan McKellar of the Royal Saskatchewan Museum, Regina, in Canada, a member of the team that described the find. "Seeing something this complete is amazing. It's just stunning."

While it looks as if the actual skin and flesh of the bird are preserved in the amber, it's basically a very detailed impression of the animal, McKellar says. Studies of similar finds show the flesh has broken down into carbon – and there's no usable DNA, fans of Jurassic Park will be disappointed to learn.

The amber does preserve some of the feather colours – but in this case they are not terribly exciting, McKellar admits. "They were little brown jobbies."

The unfortunate youngster belonged to a group of birds known as the 'opposite birds' that lived alongside the ancestors of modern birds and appear to have been more diverse and successful – until they died out with the dinosaurs 66 million years ago.

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Previous fossil finds and a couple of wings preserved in amber suggest that opposite birds hatched with flight feathers, ready to fend for themselves.

The new find adds to this evidence, as the hatchling had a full set of flight feathers and was growing tail feathers – but oddly it mostly lacked body feathers rather than being covered in down like today's hatchlings.

They probably hatched on the ground and climbed into trees, says McKellar, making them particularly likely to get stuck in sap.

In appearance, opposite birds likely resembled modern birds, but they had a socket-and-ball joint in their shoulders where modern birds have a ball-and-socket joint – hence the name. They also had claws on their wings, and jaws and teeth rather than beaks – but at the time the hatchling lived, the ancestors of modern birds had not yet evolved beaks either.

The amber containing the bird was collected by a museum in China several years ago. When it realised what it had, the museum contacted Lida Xing of the China University of Geosciences in Beijing, who led the team that described the find.

Why the opposite birds died out while the ancestors of modern birds survived is not clear, but the lack of parental care may have played a part. Most modern birds require parental care – the brush turkey of Australia (which is no relation to American turkeys) is one of the few exceptions.

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