

Genealogy of scaly reptiles is rewritten

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Penn State scientists have completed the most comprehensive analysis ever of genetic relationships among snakes, lizards, and other scaly reptiles.

The study has resulted in a radical reorganization of the family tree of the animals, requiring new names for many of the tree's new branches.

S. Blair Hedges, professor of biology, and Nicolas Vidal, a postdoctoral fellow in Hedges' research group who now is a curator at the National Museum in Paris, analyzed the largest genetic data set ever assembled for scaly reptiles, known as squamates.

"The overwhelming molecular-genetic evidence shows the primitive-looking iguanian lizards are close relatives of ... snakes on the one hand and the monitor lizards and their relatives on the other," Vidal said.

"We gave this group the new name, 'Toxicofera' because of another discovery, reported in a related paper, that some lizard species thought to be harmless actually produce toxic venom," he said. That study is reported in the current issue of the journal *Nature*.

Vidal's and Hedges' study appears in the current issue of the journal *C. R. Biologies*.

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