

Credits:

Photos:

Cypress Hansen, San Diego Natural History Museum

Illustrations:

Erick Toussaint, San Diego Natural History Museum

Caption for fossil comparison photos:

When compared with a skull of a *Smilodon* or sabre-tooth cat, the recently named *Diegoaelurus* fossil is much smaller, with a more pronounced "flange" or chin bone (lower-right edge). *Diegoaelurus* prowled the ancient rainforests of San Diego, but went extinct millions of years before true cats, like *Smilodon*, ever existed.

Caption for Ashley Poust holding the fossil photos:

Dr. Ashley Poust, a post-doctoral researcher at The Nat, has just described what is now the earliest known cat-like predator in North America, west of the Rocky Mountains. The fossil in his hand belonged to *Diegoaelurus*, a bobcat-sized carnivore that lived around 42 million years ago. *Diegoaelurus* was much smaller than the commonly known *Smilodon* or sabre-tooth cat, seen in the background.

Smilodon evolved roughly 40 million years after *Diegoaelurus* went extinct, but both animals were saber-toothed, hyper-carnivorous predators, meaning their diets consisted almost entirely of meat. *Diegoaelurus* and its few relatives, from Wyoming and China, were the first predators to evolve sabre-teeth, though several other unrelated animals developed this adaptation much later in time.

Caption for fossil in collection photos:

The *Diegoaelurus* jawbone fossil has been in The Nat's collection since 1988. It was recovered from a construction site in Oceanside by the museum's PaleoServices team. When this carnivorous animal was alive 42 million years ago, San Diego was covered in rainforests populated by many small, unusual rodents, marsupials, primates and hooved mammals.

Commented [AP1]: I'd suggest either saying "cast" or just leaving this out. It's important to tell the public when we use casts so they feel like they know we are being honest with them, but the word "model" sometimes implies that it's an artistic impression or a fake rather than a reproduction from the actual thing. Not a hill that's probably worth dying on, just my few cents.

Commented [CH2R1]: No I totally agree! I think just saying skull is fine here since the emphasis isn't on the *Smilodon*.

Commented [AP3]: This is certainly true, and speaks to our regional audience. But it is also the oldest sabertooth mammal in all of North America west of the Rockies! And possibly the last surviving member of this group, before they all go extinct and get replaced by the Nimravids. Don't want to undersell it! :)

Commented [AP4]: this should be in italics too - not sure it's showing up in track-changes

Commented [RH5]: @Cypress Hansen Since we're comparing the two, I think it would be helpful to include when *Smilodon* lived, or came onto the scene. Much later, no? And was that a true "cat"?

Commented [CH6]: @Ashley Poust can you review the whole copy again, especially the highlighted bits? Thanks!

Commented [RH7]: @Cypress Hansen Can we explain what "hyper-carnivorous" means?

Commented [AP8]: I think technically, they can't have been opossums in the way we use the word today (for the virginia 'possum that we have in SD, since I think that evolved in the Miocene). We could dig into this deeper, or just change it to marsupials.

Commented [CH9R8]: I am totally okay with "marsupials" if that's accurate

Commented [RH10]: @Cypress Hansen I'd say "unusual" and maybe give a few examples. Strange sounds bizarre and kind of derogatory to me in this context.