What dinosaur has 500 teeth? Meet Nigersaurus, and where the number comes from

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The dinosaur with 500 teeth is Nigersaurus, a plant-eater with a mouth like a vacuum cleaner. What the scientists counted, and where to cite it.

The dinosaur people mean when they ask "what dinosaur has 500 teeth?" is Nigersaurus, a plant-eater with a wide, flat mouth and rows of tiny teeth. The scientists who studied its skull counted more than 500 teeth in it, counting the ones in use and the spares waiting behind them. You'll find the number 500 all over the internet; this post shows where it started, because that's a good lesson for any child writing a report.

Say it nee-ZHAIR-uh-SORE-us. The name means "Niger lizard", after the country in Africa where its bones were found. Peabody's Nigersaurus page has a button that says it aloud.

What Nigersaurus was like

- A plant-eater. It ate soft, low plants such as ferns and horsetails.
- A mouth like a vacuum cleaner. Its mouth was wide and straight across, wider than the rest of its head, built for munching plants near the ground.
- Spare teeth, ready and waiting. Rows of tiny teeth sat behind the front ones, so a new tooth stepped into place as an old one wore out.
- A sauropod. It was a cousin of Diplodocus, one of the long-necked giants, but with a shorter neck.
- A green Sahara. It lived where the Sahara Desert is now, in the Cretaceous, when that land was green, with rivers.

Peabody's page has two checked numbers for it: a length of about 15 m (49 ft), from Wikidata, which cites the Natural History Museum's Dino Directory ("one museum's estimate"), and its teeth, from the scientists' own paper.

Where the "500" comes from

The number started with the scientists who studied Nigersaurus's skull. In 2007 Paul Sereno and six colleagues described it in a paper called "Structural extremes in a Cretaceous dinosaur", in the journal PLoS ONE (volume 2, issue 11, e1230). Anyone can read it free. They counted about 60 columns of teeth in the upper jaw and 68 in the lower, with as many as 10 teeth stacked in a single column, and wrote that there are "more than 500 active and replacement teeth in a single skull".

So "500 teeth" is right, as long as you say what it counts: the teeth it was chewing with and the spares lined up behind them, all at once. The same paper worked out that a worn tooth was replaced about once a month.

That's exactly what a teacher asks for in a report: where did that number come from? A number that's on a hundred websites, each copying the next, is only as good as the first page that said it. Here the first page is the scientists' own paper, so that's the one to cite.

Other dinosaurs with lots of teeth

The duck-billed dinosaurs, the hadrosaurs, had what the National Park Service calls "powerful arrangements of hundreds of stacked teeth". Three of them are in Peabody's wing:

- Edmontosaurus, the "Edmonton lizard", with a wide, flat mouth like Nigersaurus.
- Parasaurolophus, with the long hollow crest.
- Maiasaura, the "good mother lizard".

The Park Service also says dinosaurs constantly replaced their teeth, which is why fossil teeth are so common: a dinosaur could drop many teeth in its life without dying. Triceratops had new teeth growing in as old ones wore down, too.

The real tooth champions are alive today

Sharks never stop growing teeth. NOAA Fisheries says a sandbar shark goes through about 35,000 teeth in its life. A great white shark keeps growing new teeth its whole life, too. So if your child wants the animal with the most teeth, a shark beats any dinosaur we know about. There's more in shark facts for kids.

Things to try

- Find it by its mouth. On the Dino Finder, tap "A wide, flat mouth". Two animals stay: Nigersaurus and Edmontosaurus.
- See how big. Put Nigersaurus next to Diplodocus on Compare Two, drawn to scale beside a child.
- Hear the names. The say my name quiz says a dinosaur's name and asks which one you heard.

Questions grown-ups ask

So did Nigersaurus have 500 teeth or not?

Yes, more than 500, counting the teeth in use and the spares behind them. That's the count in the scientists' own paper: Sereno and others, "Structural extremes in a Cretaceous dinosaur", PLoS ONE, 2007. Cite that if a teacher asks where the number came from.

Did it eat meat with all those teeth?

No. Lots of small teeth don't mean a meat-eater. Its teeth were for nipping soft plants, and as each one wore out, a spare stepped in.

Why is it named after a country?

Because its fossils were found in Niger, in the Sahara. Lots of dinosaurs are named for where they were found, like Argentinosaurus and Utahraptor. The dinosaur names list has all 34 in Peabody's wing.

Peabody (peabody.kids) is free through the end of 2026 and has no ads. The library has stories for when the fossils are done.

Free at peabody.kids/blog/what-dinosaur-has-500-teeth