YOU MIGHT THINK OF SHARP TEETH AND SCALY SKIN WHEN YOU PICTURE AN ALLIGATOR, BUT WHAT ABOUT A PERSONAL AC UNIT? TURNS OUT THAT ALLIGATORS HAVE ONE IN THEIR HEAD.

UNIVERSITY OF MISSOURI ANATOMY PROFESSOR CASEY HOLLIDAY TRAVELED TO THE SAINT AUGUSTINE ALLIGATOR FARM IN FLORIDA TO STUDY ALLIGATORS. HE DISCOVERED THAT THE ALLIGATORS HAVE HOLES IN THEIR SKULL THAT ACT AS A BUILT-IN COOLING SYSTEM.

“And one of the things that we discovered in this process is that it’s really hard to actually get a picture of the roof of an alligator skull in the wild because they’re always off away from you and they’re dangerous to approach. So, being at the farm allowed us to actually get up and over fences and take pictures and videos of alligators from the top down, which was data that we really needed to test the anatomy.”

HOLLIDAY USED THERMAL IMAGING TO STUDY THE BLOOD VESSEL-FILLED HOLES, WHICH HELP COOL THE ALLIGATORS IN THE HEAT.

THEN, HOLLIDAY LOOKED AT A BIGGER AND OLDER PREDATOR. HE FOUND THAT THE TYRANNOSAURUS REX HAD SIMILAR HOLES IN ITS HEAD THAT REGULATED BODY TEMPERATURE.

“If you’re an active predator that we know t-rex probably was, at some point, you want to be able to shed heat as much as you want to be able to gather heat. And so having a bed of capillaries basically up here on the skull roof provides a mechanism for these types of animals to be able to collect heat or shed heat.”

THIS DISCOVERY COULD HELP THOSE WHO STUDY AND CARE FOR LARGE ANIMALS BETTER UNDERSTAND HOW THEY STAY COOL AND BEAT THE HEAT.

I’M CAILIN RILEY, WITH A MIZZOU SPOTLIGHT ON SCIENCE.