SCIENTISTS ESTABLISH DIFFERENCES IN THE NUMBER OF NEURONS IN SIX SPECIES OF BORICUA LIZARDS [1]

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El Nuevo Día [2]

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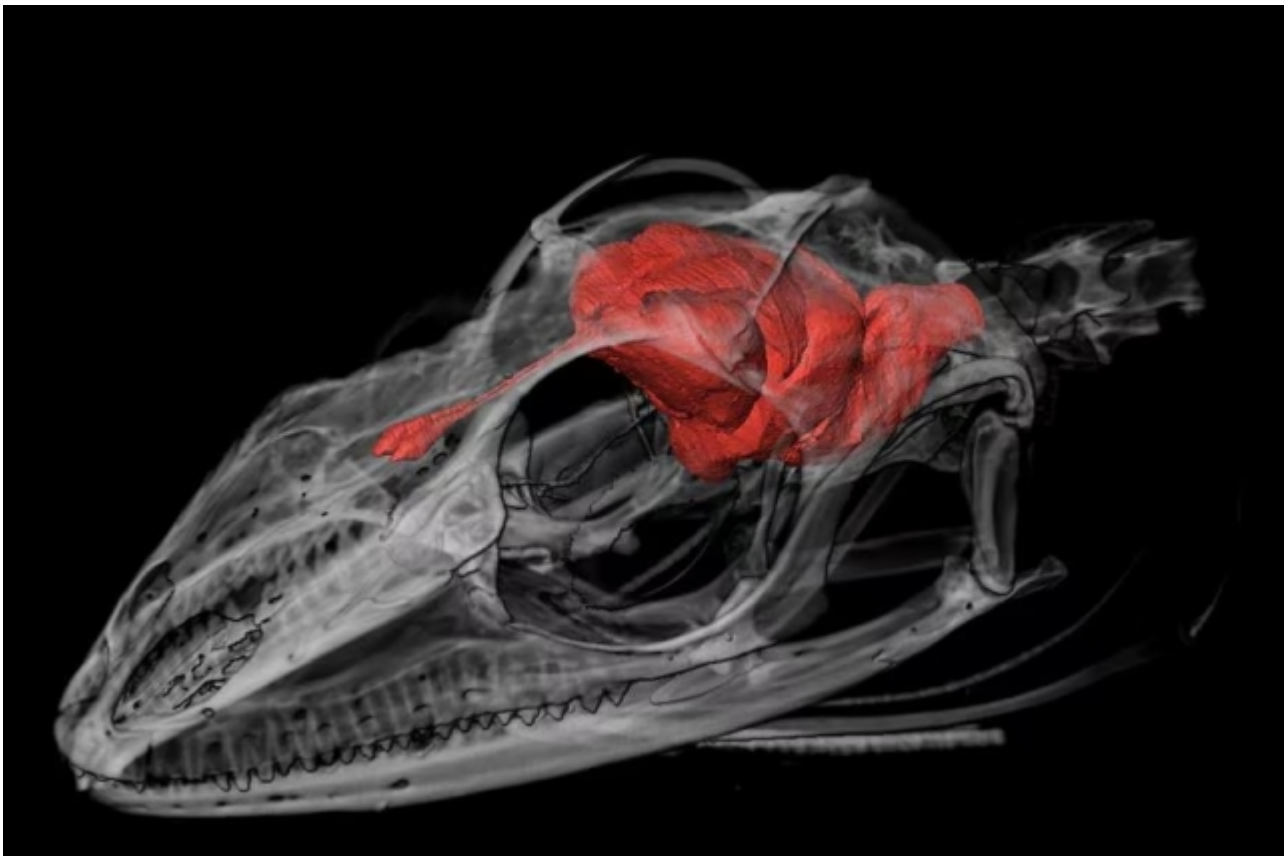

Illustration of a CT scan of a lizard “Anolis cristatellus” (native to Puerto Rico) and the mass shown in red is the brain (Provided).

Neurons are one of the main components of the brain and play a key role in its processes, from coordinating limb movement to memorizing important dates and planning actions. For example, as you read this story, your nerve cells encode the information, make a judgment about whether you find it interesting or boring, and maybe even make you remember a “brain-burner” test.

Two of the aspects that interest biologists are the size and complexity of the brain relative to the size of the organism. In the case of size, it has been observed that organisms with disproportionately large brains tend to be “smarter” or have more advanced cognitive abilities. Among primates, for example, the species Homo sapiens (i.e., humans) has the disproportionately largest brain of the group and is speculated to possess the most advanced cognitive abilities.

What causes certain organisms to develop complex and relatively large brains? One of the most common hypotheses is that natural selection shapes the brains of animals to maximize effective habitat use, resulting in an advantage in terms of survival and reproduction. However, empirical evidence supporting this prediction is relatively sparse.

Assessing whether there is a relationship between brain complexity and preferred habitat motivated Manuel Leal and his team at the University of Missouri to study this relationship in the case of lizards. In their recent publication in the scientific journal Biology Letters, the group

investigated whether there are significant and marked differences in the number of neurons that make up the brains of six species of lizards endemic to Puerto Rico and how this relates to the complexity of the niche or habitat preferred by each one.

This is a summary, to read the full story please visit our website in spanish or click here [3].

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