Reports present findings of broad biological interest in a concise, to-the-point style. Reports are typically limited to six journal pages (usually around 2500 words of main text, i.e. all of the text in the manuscript except for the summary, STAR methods text, any Supplemental Information text, and References section), and there should be no more than four display items (figures and tables). Additional items and details may be published online as supplemental Information (please see the [supplemental Information guidelines](http://www.cell.com/star-supplemental-information) for more information).

Presubmission inquiries should include a list of all authors, a clear abstract, and a cover note explaining the significance of the advance and the potential general interest to the broad readership of *Current Biology*

Main figure

Rest supplementary

Summary 250 words

How organisms interact with the world is fundamental to how evolution shapes the sensory systems that allow them to perceive it. One aspect of perception shared across living organisms is the scale at which it can perceive events in its environment. The rate at which a organisms can perceive events is highly variable across the Animal Kingdom ranging from the high temporal abilities of pied fly catchers and dragon flies to the extremely slow paced visual perception of the deep sea escolar. This variation in temporal perception is predicted to be primarily driven by evolutionary selection based on the ecological pace of a species, with species with fast moving ecologies expected to evolve fast paced temporal perception abilities. However, the link between a species temporal perceptive abilities and the pace of its ecology has only been tested within particular species or limited to certain taxa, with few large scale tests of this hypothesis. Here, we use critical flicker fusion, a measure of visual temporal perception, data across over 100 animal species spread across xx Phyla, to test whether ecological pace is linked to temporal perceptual abilities. We show smaller species which can fly along with pursit predators have the highest critical flicker fusion rates. We also show that while marine ballistic predators, which generally employ sit and wait strategies, have higher temporal perceptive abilities compared to foraging predators, terrestrial ballist predators do not. This difference between marine and terrestrial envnments is likey liked to dfferences in the abilty to acts on information, further highlighting how enviornmetns affect temporal perception. These results are important because.

Intro

Results

Discussion

STAR Methods