Biodiversity Survives Extinctions For Now

A meta-analysis of ecosystems finds that species losses in any given place do not yet translate to large changes in the number of different species in that place. David Biello reports.

Apr 20, 2014 lBy David Biello

We are living during what seem to be the opening stages of the sixth mass extinction in our planet's 4.5 billion year history. Species of birds, fish, mammals and plants are disappearing at speeds rarely experienced, thanks in large part to human activities: pollution, climate change, habitat destruction and other damage. But extinction apparently does not mean less biodiversity —at least not yet.

A new look at ecosystems from the poles to the tropics shows that losses in the number of species in any given place do not yet translate to large changes in the overall number of different species there. The study is in the journal Science. [Maria Dornelas et al, Assemblage Time Series Reveal Biodiversity Change but Not Systematic Loss]

The researchers analyzed 100 surveys that followed more than 35,000 different species over various lengths of time. These long-term studies found that the number of different species in, say, a coral reef remains relatively constant. Because the loss of a species, either locally or entirely, is often balanced by the arrival of a new species.

The meta-analysis showed that 40 percent of places had more species present, 40 percent had less and 20 percent were unchanged. In other words, the ecosystems of the current Anthropocene era are transformed, but just as diverse—so far anyway. We are living in a world of novel ecosystems.

—David Biello