

Biodiversity plunges below 'safe' levels: study

Having a range of different plant and animal species helps guarantee the health of the Earth, but a study on Thursday, 14 July, suggested that biodiversity may be declining beyond safe levels.



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On 58% of the world's land surface, which is home to 71% of the global population, "the level of biodiversity loss is substantial enough to question the ability of ecosystems to support human societies", said the report in the US journal *Science*.

Researchers at University College London based their study on data from hundreds of international scientists, crunching 2.38 million records for more than 39,000 species at more than 18,000 sites in the world.

They sought to estimate how biodiversity has changed over time, particularly since humans arrived and built on land.

Areas most affected included grasslands, savannas and shrublands, followed by many of the world's forests and woodlands, said the report.

Using a reference known as the Biodiversity Intactness Index (BII), which captures changes in species abundance, researchers said a safe limit of change is generally considered about a 10% reduction in BII.

In other words, "species abundance within a given habitat is 90% of its original value in the absence of human land use", said the report.

The study showed that global biodiversity has fallen below that threshold, to 84.6%.

"This is the first time we've quantified the effect of habitat loss on biodiversity globally in such detail and we've found that across most of the world biodiversity loss is no longer within the safe limit suggested by ecologists," said lead researcher Tim Newbold of UCL.

"In many parts of the world, we are approaching a situation where human intervention might be needed to sustain ecosystem function."

The biggest changes have been happening in the most heavily populated areas, raising concern about the potential impact on human health as well.

"It's worrying that land use has already pushed biodiversity below the level proposed as a safe limit," said co-author Andy Purvis of the Natural History Museum, London.

"Decision-makers worry a lot about economic recessions, but an ecological recession could have even worse consequences - and the biodiversity damage we've had means we're at risk of that happening," he added.

"Until and unless we can bring biodiversity back up, we're playing ecological roulette."

Source: AFP

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