

Small and isolated habitat patches crucial to species survival

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Small, local patches of habitat could be playing a much bigger role in conserving biodiversity than you think, according to new research.

The global study just published in the *Proceedings of the National Academy of Sciences* looked at the conservation values of vegetation patches in 27 countries on four continents, and considered their size and distance to other habitat.

The results were surprising according to lead researcher Professor Brendan Wintle from Melbourne University.

"Compared to large and well connected [habitat areas](#), small and isolated patches of habitat have generally been treated as not very important to conservation," said Professor Wintle. "What we have found, however, is that small and isolated habitat areas are very important to the survival of many rare and [endangered species](#)."

"The environment is suffering a death by a thousand cuts," Wintle continued. "We need to re-think vegetation management regulations and policies that allow small patches of vegetation to be destroyed."

Co-author Dr. Sam Veloz, Climate Adaptation Group Director at Point Blue Conservation Science, added "We have many existing processes in place to fund restoration or conservation activities that are largely focused on large patches of habitat. While it's important to continue these efforts, our paper emphasizes that small but important habitat patches should be included in an overall conservation portfolio."

An example from the paper explored suitable habitat for four songbird [species](#) in California and Oregon (the streaked horned lark, savannah sparrow, Western meadowlark and the Oregon vesper sparrow). Research showed that highly fragmented parts of the study areas for each species contain habitat patches of very high conservation value. And the four species studied have ranges primarily in those small, isolated patches.

Dr. Heini Kujala from the University of Melbourne, another co-author, said that once you start considering how much habitat is left for a species, small patches can be very valuable.

"Small habitat patches can sometimes be the last pieces of a once widespread habitat. For species that rely on this type of habitat that makes them very important," said Dr. Kujala.

"Definitely we are not saying that it is an improvement to cut up big habitat areas into smaller pieces, rather that many of the small pieces that we have left are really important for conservation."

The study's authors hope that the research will raise awareness among planners, land managers, scientists, and the community about the value of small vegetation patches.

The article, "Global synthesis of [conservation](#) studies reveals the importance of small [habitat](#) patches for biodiversity" was published on December 10th in the peer-reviewed journal *Proceedings of the National Academy of Sciences*.

More information: Brendan A. Wintle et al, Global synthesis of conservation studies reveals the importance of small habitat patches for biodiversity, *Proceedings of the National Academy of Sciences* (2018). [DOI: 10.1073/pnas.1813051115](https://doi.org/10.1073/pnas.1813051115)

Provided by University of Melbourne

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