

High genetic diversity in an ancient Hawaiian clone

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The entire Hawaiian population of the peat moss *Sphagnum palustre* appears to be a clone that has been in existence for some 50,000 years researchers have discovered. The study is published in *New Phytologist*.

Among the most long-lived of organisms, every plant of the Hawaiian population appears to have been produced by vegetative rather than sexual propagation and can be traced back to a single parent.

Surprisingly, the [genetic diversity](#) of the Hawaiian clone is comparable to that detected in populations of *S. palustre* that do propagate sexually and occur across vaster regions.

"The genetic diversity of populations occurring on small remote islands is typically much lower than that detected in populations of the same species found on continents and on larger, less isolated islands," said Eric Karlin, a professor at Ramapo College in Mahwah, New Jersey, USA.

As the [Hawaiian Islands](#) are the most remote high volcanic island system in the world, the comparatively high genetic diversity detected in the Hawaiian population of *S. palustre* is unusual.

The occurrence of high genetic diversity in a clone was also "quite unexpected" said Professor Karlin.

This study indicates that significant genetic diversity can develop in a clonal population. It also suggests that vegetative propagation does not

necessarily preclude long-term [evolutionary success](#) in a plant.

More information: The study is available at
[onlinelibrary.wiley.com/doi/10 ... 011.03999.x/abstract](https://onlinelibrary.wiley.com/doi/10.1111/1365-3113.12345)

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