Genetic Basis of Alpine Plant Adaptation

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Decrease in biodiversity in the near future
Jones' columbine's DNA confers survival traits
Traits allow Jones' columbine to survive in harsh climates

- Normal growth
- Prostrate growth
- Waxy leaves
- Dwarfism
- Small, compact leaves
Genetic vocabulary is necessary to understand our experiment.
Recombination creates a diverse set of phenotypes and genotypes.

Chromosomes cross over during meiosis. 

First Generation 

Origami

Chromosomes cross over 

First Generation

Second Generation

Genetic variation

Jones’ Columbine

No genetic variation
Blue hues determine the level of waxiness
Each Columbine's DNA is extracted and sequenced.
Mean distribution suggests waxiness is a dominant trait.
Conclusion