Genetic Load of *Pinus patula in* Zimbabwe

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Abstract: Temperate and boreal conifers have higher genetic loads than other plants and most animals. Genetic load has not been previously reported for species indigenous to the Mexican-Central American center of Pinus species diversity. We report embryonic genetic load for *Pinus patula,* a Mexican species used as an exotic in Zimbabwe. The study is based on a Zimbabwe Forestry Commission inbred mating design (Burrows and Askew 1982) with five founders and their progeny, 12 parents, which were intermated at four levels of inbreeding. All founders are two to three generations removed from the original Mexican collections. *Pinus patula* has 6 to 8 embryonic lethal equivalents, a genetic load comparable to most temperate and boreal pines. This estimate is adjusted for non-genetic sources of mortality and assumes 1 to 2 archegonia. There is a linear decline in sound seed set with increased inbreeding (F = 0 to 0.5).

Acknowledgements: This work is part of a project supported by NATO, Zimbabwe Forestry Commission, USDA-Forest Service and the Texas Highter Education Coodinating Board.

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