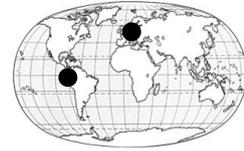


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DOES ROAD AND TRAIL CONSTRUCTION IN THE GALAPAGOS ISLANDS CREATE PLANT INVASION CORRIDORS?

The aim of this study is to determine the extent to which introduced plant species may use trails and roads to invade the Galapagos National Park (GNP). Monitoring of all plant species in permanent plots across a range of habitat and disturbance conditions has been conducted at two sites running through the GNP on Santa Cruz Island over the last 4 years. One site is a gravel road extending from the agricultural semi-humid zone (220m above sea level) to the arid zone at sea level. The second is a dirt trail extending from the agricultural zone (530m) to the highest point of the island (860m). Although native vegetation continues to dominate, the roads and trails contain considerably more introduced species than adjacent intact vegetation. In the case of the dirt trail, twice the number of introduced species occurred on the trail compared to the adjacent intact vegetation (14% of total species). A different trend occurred along the gravel road, where the proportion of introduced species in the adjacent intact vegetation is now very similar to the proportion on the road (9% compared to 5-11%) but was only 1% at the beginning of the monitoring. Over the same monitoring period, the proportion of endemic species in the intact vegetation decreased from 37-24%. Since these findings are of great conservation concern, the results will be correlated to disturbance factors to address the question whether these observations indicate temporary successions or permanent replacement of native and endemic plant species. Results from ongoing monitoring will help formulating recommendations to the Galapagos National Park Service for control actions. Recommendations will also account for the costs and expertise required to provide the monitoring and analysis for future trail and road building. This is necessary to ensure the National Park's integrity and therefore the protection of the native and endemic plant species of Galapagos.

keywords: Galapagos, disturbance, invasion corridors, monitoring