Sampling To Understand Non-indigenous Plant Species Occurrence And Develop Probability Maps Of Occurrence[MAS]

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Many natural areas have a mandate to preserve the natural systems under their control and to manage non-indigenous species. However, in order to manage such species one has to know which and where species occur. We believe that there is a three-phase process in non-indigenous management; inventory/survey, monitoring, and management. We surveyed the northern range of Yellowstone National Park using a stratified sampling method. Transect start locations were stratified on a known disturbance, roads and trails, but to ensure unbiased sampling they finished 2000 m from any road or trail. Continuous data were collected along each transect, information on biotic and abiotic variables were collected along with data on the occurrence of non-indigenous species. Logistic regression was used to analyze the data

for correlations between non-indigenous species occurrence and the independent variables. The best model was assessed using Akaike Information Criterion (AIC). Coefficients from the best model were then used to produce probability maps of target species for the area of interest.