# Predicted Habitat Suitability for Biodiversity to Support Landscape Planning Processes

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The Montana Natural Heritage Program has been modeling predicted habitat suitability for a variety of individual species for over 15 years. We now have models in place for nearly 1,100 species, including all vertebrates, all plant Species of Concern, and all non-native species that are invasive. Model write ups that describe the modeling process, evaluate model output, and provide links to download layer package files of model output for individual species are posted on our Predicted Suitable Habitat Models page at https://mtnhp.org/models/ Recently we have combined individual models for biodiversity groups to create 90 x 90 meter pixel maps of cumulative habitat suitability for native species and cumulative invasion risk for non-native species. Maps can be used by resource managers in landscape-scale planning processes to prioritize conservation efforts for native species and survey and control efforts for non-native species. A new Habitat Suitability for Biodiversity task in our Map Viewer web application https://mtnhp.org/mapviewer/ allows anyone to access these maps and create summaries of species predicted to occur in various jurisdictions of interest as well as the cumulative biodiversity various land ownership categories are predicted to support within the jurisdiction. Models for individual species can be displayed as map overlays and land ownership breakdowns by predicted suitability class are provided for individual species predicted to occur in each jurisdiction of interest. Range-wide models for individual species, statewide cumulative predicted habitat suitability for biodiversity layers, and layers and maps with output rescaled to local areas of interest can be requested at https://nris.mt.gov/reqapp/userMain.asp