The Avian Science Center developed predictive maps of species distributions for the Madison River based on newly available riverine system data from the National Wetlands Inventory (NWI) and the Natural Heritage Program’s Landscape Integrity Model. We used a maximum entropy model (MaxEnt) to predict species distributions using species occurrence
locations collected from 2003-2010. Models performed well for 13 species, demonstrating
that available environmental data layers, including NWI, can be used to successfully predict
species distributions along the Madison River for a number of important riparian bird
species. These models allow fine-scale mapping of habitat suitability for riparian birds,
which fills gaps in current data on species distributions, and can be used to prioritize riparian
conservation and restoration projects.