Project Title: Developing, Evaluating and Refining a Multiscale Iterative Habitat Modeling Approach for Multiple High Priority Invasive Species: Year 1

Task Agreement #: G19AC00416 **Modification(s):**
Discipline: Natural
Type of Project: Research
Funding Agency: USGS
Other Partners/Cooperators: Colorado State University
Student Participation:
Effective Dates: 9/15/2019 – 9/14/2020
Funding Amount: $150,000

Investigators and Agency Representative:
USGS Contact: Catherine, Jarnevich; jarnevichc@usgs.gov

Investigator: Paul Evangelista B254 NESB National Resource Ecology Lab Colorado State University Fort Collins, CO 80523 Phone 970-491-2302 Email: paul.evangelista@colostate.edu

Project Abstract: The goal of this work is to develop a scientifically robust and computationally efficient modeling process to produce SDMs for high priority invasive plant species to help inform management planning and actions. Will leverage previously developed occurrence download scripts, extensive knowledge and application of SAHM, and newly developed modeling process of automation and human intervention (Young et al. *In review*) to meet the project's research objectives. During this process, will also develop novel ideas and outcomes that will advance the understanding of invasive species ecology, while supporting DOI land managers and decision makers.

Specific objectives include:
Objective 1: Create models of at least 100 high priority invasive plant species, including invasive grass species
Objective 2: Evaluate the trade-off between regionalized and contiguous US models
Objective 3: Develop a framework for quickly and easily iterating models as new data becomes available