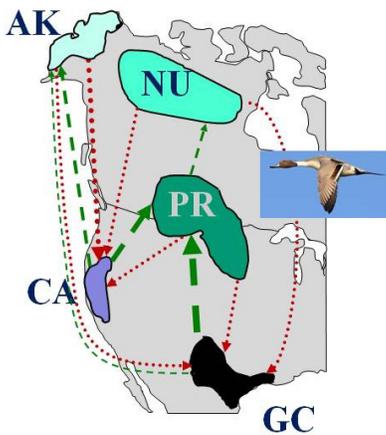


# Integrating Habitat and Harvest Management for Northern Pintails



**The Challenge:** Several blue-ribbon panels have challenged the waterfowl management world to recognize the linkages between the two primary management frameworks: harvest management under the Migratory Bird Treaty Act, and habitat management under the North American Waterfowl Management Plan. Because these two frameworks seek to manage the same populations, there needs to be better coordination, in planning, in modeling, in monitoring, and in decision-making.



Continental pintail population model.

**The Science:** As a template for the integration of habitat and harvest management, we have developed a continental population model for northern pintails. This model links population level responses at the continental level, including harvest potential, to habitat management at the local level by articulating density-dependent relationships at the regional level.

**The Future:** This work has already allowed Joint Ventures to reframe their performance metrics and to think about how their actions scale up to population-level demographic effects. Ultimately, this model, and similar ones being developed for other species, will allow JVs to evaluate the effects of management actions they are considering, and will allow harvest managers to respond to changing habitat conditions, including those brought about by habitat management, agricultural policy, and climate change.

