Representative Species

The U.S. Fish and Wildlife Service (Service) worked with state, federal and NGO partners and the University of Massachusetts to develop and implement a process to identify representative species. Representative species are species whose habitat needs, ecosystem function, or management responses are similar to a group of other species such that conservation planning and actions for a representative species will also address the needs of other species in that group. Conservation planning and actions for individual species with more specialized needs may also be needed to complement those taken for representative species. The initial effort focused on the North Atlantic LCC geographic area (link to map of LCC with subregions).

The project involved several steps including:

* Compiling a list of over 400 priority federal trust species (migratory birds, interjurisdictional fish, federally-listed species) and state Species of Greatest Conservation Need in the northeast region (link to priority species lists);
* Relating these priority species to the Northeast Terrestrial and Aquatic Habitat Classification Systems and Maps (link to [classification](http://rcngrants.org/node/38) and [maps](http://conserveonline.org/workspaces/ecs/documents/ne-terrestrial-habitat-mapping-project) and species-habitat matrix) with extensive expert review;
* Clustering habitats based on the species use of these habitats (link to clusters) and assigning indicator species value to each species in a cluster;
* Developing criteria for selecting representative species (link to criteria); and
* Hosting expert workshops to use the data and criteria to select species for three subregions of the North Atlantic LCC (link to results and discussion tables);

The result was selection of 87 terrestrial species as representative species for the three subregions of the North Atlantic LCC, including: 66 birds, 9 reptiles, 4 mammals, 4 amphibians, 2 plants and 2 invertebrates. A total of 17 aquatic species were identified with an understanding that a revised process was needed for aquatic species selection.

Next steps for representative species include the following;

* Development and implementation of a modified approach for selecting additional aquatic representative species;
* Compilation of existing population goals for representative species and if needed the development of modified or new goals based on partner and public input and assessments of current and future habitat capability;
* Selection of representative species for the Appalachian, Upper Midwest Great Lakes and South Atlantic LCC portions of the Northeast Region through a similar process;
* Use of representative species for species-habitat modeling, conservation designs and decision support in terrestrial, aquatic costal and marine systems; and
* Evaluation of the effectiveness of a representative species approach for conservation design.