

March 2012

Wildlife and Fisheries Impacts and Strategies



Identified Impact - Shifting species range

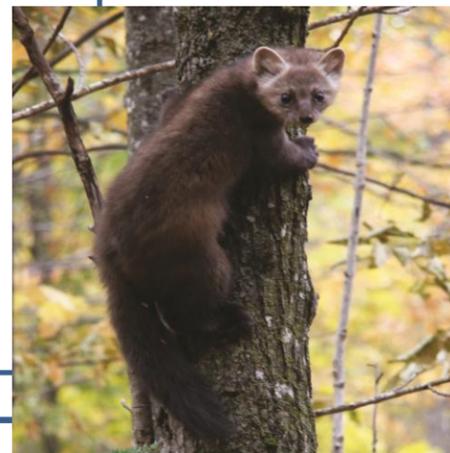
Temperature and precipitation patterns suitable for certain wildlife species will change due to a spatial shift in the climate niche. For example, amphibians that have permeable skin and require water for reproduction will suffer from drought while species that need snow cover to rest under in the winter may not have adequate protection.

Adaptation strategy:

Land Protection should be grounded in climate-sound strategies such as representing multiple habitat types or populations of a species across a reserve system, ensuring connectivity among protected areas, and considering keystone species in reserve systems.



A.B. Sheldon



J. Woodford

Identified Impact - Changing phenology

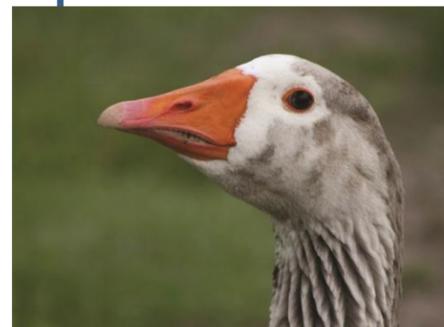
Migratory, breeding and foraging behaviors will shift with the seasons, altering how species interact, including the possibilities of breaking, intensifying, or establishing novel relationships.

Adaptation strategy:

Promoting resiliency with good stewardship of wildlife habitat management including: adaptive management, reducing habitat loss and degradation, and creating natural disturbance processes such as fire.

Adaptation strategy:

Build public-private management partnerships, particularly in agricultural and other fragmented landscapes where private lands are of increasing importance to wildlife. Expand education-outreach to increase ecological literacy to allow for more informed decision-making and increased support of management plans.



C. Harty

Identified Impact - Coldwater species will suffer

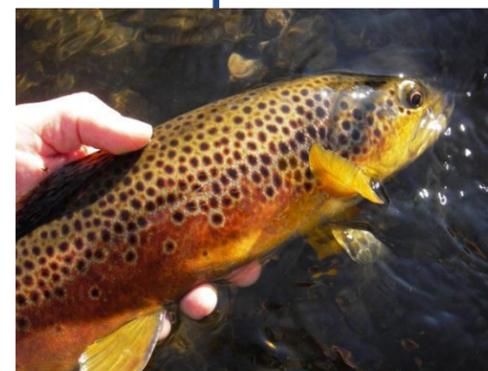
Reductions in all cold water habitats and fish species are anticipated due to increase air temperature and changes in thermal conditions. Under worst-case climate scenarios, brook trout are projected to be extirpated from Wisconsin streams, the distribution of mottled sculpin to decrease by 95% and brown trout by 88%. Twenty-three warm water species are expected to increase

Adaptation strategy:

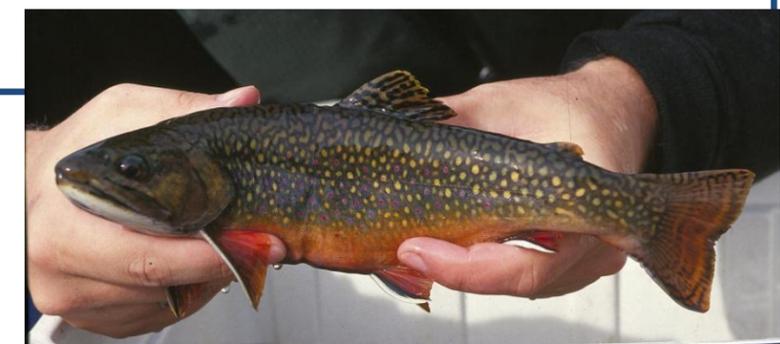
Develop a triage approach to identify climate change impacts to cold water resources and allocate management resources to those cold water habitats most like to realize success. Examples include adaptive management, changes to angling regulations, and fish stocking strategies.

Adaptation strategy:

Manage riparian vegetation to promote stream bank and channel stability to reduce erosion and siltation in streams, to protect streams from damage attributable to high flow events, and to provide shading to maintain the lower groundwater temperatures over longer length of streams. Reduce existing, or limit creation of additional, impervious surfaces in critical watersheds containing cold water streams, and utilize BMPs on agricultural lands to limit surface runoff.



Matt Mitro



John Lyons