The Endangered Species Act (ESA), passed into law by overwhelming bipartisan majority in 1973, represents the first major act of protection for endangered species in North America. Over the past 46 years, it has seen the list of species under its protection grow to over 700 animals and more than 1600 plants.

After a species is listed, the species and its habitat immediately receive protection and the US Fish and Wildlife Service (USFW) develops a recovery plan describing the steps necessary for the species to recovery to the point that it no longer needs protection. The plan identifies and protects critical habitat for the recovery of the species. Because the law continues to be controversial with advocates complaining that the act does not go far enough in its effort to help species recovery and with detractors seeing the ESA as too powerful and with the potential to stifle economic growth in areas with endangered species, we designed this study to analyze the effectiveness of the ESA based on population trends of the species protected by the ESA and determine if the ESA has had a significant impact on the recovery of these species.

Using population trend data gathered from the USFW biannual reports to congress on species recovery, we can determine if a species population is “improving”, “declining”, or “stable”. We will then use these population scores to determine:

- if a significant amount of species are showing recovery,
- if having a recovery plan affects species recovery,
- if having designated critical habitat affects recovery, and
- if recovery is more common among species that have been listed longer.

**Methods**

We will use species recovery data provided by US Fish and Wildlife to test the ESA effectiveness. Each species is assigned a recovery status of Improving, Declining, or Stable. We will use time weighted score averages to ensure that we are using data from multiple reports, and not relying solely on the most recent one. We will then use this processed data to determine the proportion of species that are improving, stable, and declining. We will break down our results to compare the recovery of the different taxonomic classes.

We will analyze the species that have FWS recovery plans, and determine what number of those species is showing recovery. We will then use ANOVA to determine if that number is significantly (>0.05) greater than the number we got from analyzing all of the species. We will do the same for species with critical habitat.

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