

## ESRI App Challenge 2023: ConservNation

### Our Mission

Our mission is three-fold. First, is to educate the public about the over 139.9 million hectares of protected or conserved lands of Canada that make up 12% of its land area. Despite these protections, however, these rich landscapes face the combined threats of encroaching human activities and a rapidly changing climate. Our subsequent goals thereby are to identify Canada's most threatened protected areas, and project opportunities for future conservation.

ConservNation works to serve as a powerfully informative, dynamically analytical, and resource-full web app with all the information and tools you need to develop a greater understanding of Canada's protected areas, areas that should be protected, and the impacts of climate change and human settlement on them.

### About the App

ConservNation focuses on Canada's protected and conserved areas, as defined by the Canadian Protected and Conserved Areas Database (CPCAD) (Environment and Climate Change Canada, 2022). It goes beyond the surface to provide the user with a plethora of information on the most notable of these, Canada's National and Provincial Parks. The app employs Canada's publicly available geographic data to assess the risks these areas face from the 'human footprint' and goes a step further to put the user in control of analysis to map human and projected climate impacts across the country. Looking to the future, ConservNation can aid in guiding management decisions on new lands to protect by providing spatial context on the vulnerability and ecological significance of the vast Canadian landscape. This is guided in part by biodiversity data partially attributable to citizen science, for which there are resources for the user to get involved in.