You are a field agent for the U.S. Fish and Wildlife Service. You have been assigned to determine if a species should be moved from the "threatened" species list to the "endangered" species list. In your studies, it becomes obvious that this species is no longer able to perform its ecological roles because its numbers are declining so rapidly (50% drop in the last 30 years; estimated 90% over last 100 years). You make the determination that this species must be recognized as an endangered species.

The species, *gulo gulo*, is a large, rodent-like mammal that lives in wooded areas was once found across the northern United States and found as far south as the Michigan boarder with Indiana. Now the species is only found in four small, isolated areas in the northern lower peninsula and upper peninsula of Michigan (as seen on the map below). These animals are carnivorous and live solitary lives. Each individual requires large areas of land to hunt (up to 200 square miles), and they are very territorial. Males will mate with 2-3 females for life. Females have a short gestation period (about 60 days) and give birth to litters of 2-3. Farmers and ranchers have been known to kill these mammals because they are seen as a threat to livestock.

Your team must propose a recovery plan to address the problem faced by this species.

In order to do this, you must first understand why the species faces this problem (Think HIPPCO). Propose a possible scenario for why this species seems to be facing extinction.

Then you must explain how you intend to help this species toward recovery and explain how this plan will be implemented. Consider the following:

- Monitoring of population changes
- Identification of major threats to the species
- Steps you will take to help the species recover

