

Predator/Prey Simulation

Animals

- Roam the field.
- Can randomly catch a disease. Randomly spreads to adjacent animals of the same species. Disease also spreads to new births.
- Breed when next to animal of the same species and opposite sex.

Predators

Eat prey.

- Fox
 - Will only eat rabbits and mice.
 - Fog causes Fox to not act.
- Tiger
 - Does not act during nighttime (between 0 and 6).

Prey

Eat plants.

- Mouse
 - Can catch the plague which is deadlier than normal diseases.
- Squirrel
- Rabbit

Extension Tasks

Plants

- Exist in a plantField inside the animal field, accessed by prey using the animal field.
- Only grow when it is raining.
- Age used for food value.

Weather

- Static object inside simulator
- Fog and rain at random.

Disease

- Animals can randomly catch a disease
- Mouse can only catch plague which is deadlier than a normal disease.
- A diseased animal will give birth to a diseased baby.

Max Food level

- Animals now have a maximum food level.
- They will no longer hunt if they reach the max food level.

Bugs or Problems

Not all species are able to sustain their populations.