TO: CS4500 Staff

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How the dealer decides to call `feed`

The dealer first calls `feed` after players have turned over their new trait cards on their species boards and discarded the old ones. There are three conditions the dealer must check before calling `feed` upon a player:

1. Has this player already returned a message stating that it is finished feeding its species?
2. Does the player have only one hungry non-carnivore species?
3. Does the player have only one hungry carnivore species and there is only one other attackable species in the game?
4. Is the watering hole empty (i.e. its value is `0`)?

If statement #1 is true and #4 false, the dealer will move on and call `feed` on the next player in the list, if possible. If statements #2 or #3 are true, then the dealer will choose the species to feed for the player, since there will only be one option. If the statement #4 is ever true, the feeding round will end without `feed` being called on the current player.

How the dealer applies the results of `feed`

In our implementation, the player hands back an array describing one of the four possible feeding actions. The dealer will identify the action based on the length of the response (each action has a distinct number of elements, making them easy to identify) and then perform it.

1. If the result is false, then the dealer will move on to the next player and never call `feed` on this one again until the next turn.
2. If the result is a list of one species and a number, the dealer will check that the species has the Fat Tissue trait. If it does, the dealer will attach that number of food tokens to the Fat Tissue card, checking that there are enough tokens in the watering hole and that the body size of the species allows that much stored food.
3. If the result is a list of just one species, the dealer will check that the species does not have the Carnivore trait. If so, it will feed it one token from the watering hole.
4. If the result is a list of a species, a player state, and another species, the dealer must check a few conditions:
   a. That the first species is a carnivore
   b. That the second species is owned by the given player
   c. That the second species is attackable by the first one
   d. That the given player is not the same as the called player
   As long as all of these conditions are passed, the dealer will simulate an attack and add food to the first species/remove population from the second species based on traits.

If any of the conditions checked above fails (for example, a list of size one containing a species with the Carnivore trait), the dealer will consider the move illegal and take action to punish the player.