

PLANT EXPANSION



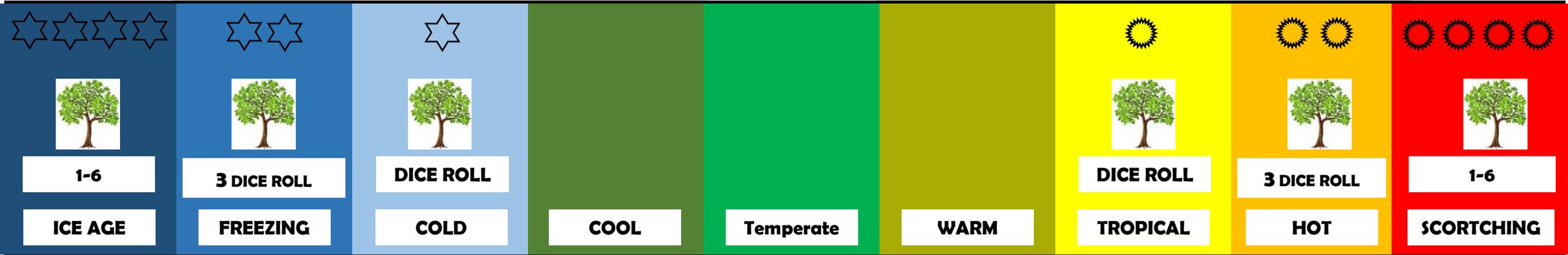
Darwin's Game Night
Teaching Evolution Through Board Games

By
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EVOLUTION CLIMATE PLANT EXPANSION GAME PLAY DIFFERENCES

1) "NITROGEN-POOL" vs "watering hole"

2) REVISED CLIMATE BAR



Heavy Fur

Prevent 3 Population loss due to Cold. Increase Population loss due to Heat by 1.

1

Burrowing

Prevent 1 Population loss due to Heat/Cold. This species can only be attacked if it is Hungry.

4

Cooling Frills

Prevent 3 Population loss due to Heat. +2 Body Size when determining if this species can be attacked.

4

Defensive Herding

Prevent 1 Population loss due to Cold. A Carnivore must be larger in population to attack this species.

2

Mud Wallowing

Prevent 1 Population loss due to Heat. A Carnivore must discard a card to attack this species.

5

evolution
Trait Card

Pack Hunting

Decrease Body size to equal to its Population's Body Size when determining if it can attack another species.

0

Ambush

Use your Warning Card when attacking a Carnivore to decrease the likelihood of being spotted by Mystery.

2

Nocturnal

Prevent 1 Population loss due to Heat. Before each of your feeding turns, feed this species if there are no Carnivores that could eat it.

2

Migratory

Prevent 1 Population loss due to Heat/Cold. After the last species has fed for the round, take 2 Plant Food from the Food Bank if the Warning Hole has no food.

1

Fat Tissue

Max store food on this card up to its Body Size. Before the Food Cards are revealed, move this food to the Species Bank.

4

Cooperation

When this species takes food, your species to the right takes 1 food from the same source.

3

Carnivore

Must eat kind and age other species. Carnivores eat Plant Food.

3

Climbing

A Carnivore must have Climbing to attack this species.

2

Intelligence

Discard a card(s) from your hand during one of your feeding turns. Carnivores: Negotiate a trait for this species once a turn. Non-Carnivores: Take 2 Food from the Food Bank.

2

Scavenger

Take 1 Meat Food from the Food Bank when a Carnivore successfully attacks another species.

4

Foraging

Activate this species only Plant Food, take 1 additional Plant Food from the same source.

5

Long Neck

Before the food cards are revealed, take 1 Meat Food from the Food Bank.

9

Hard Shell

+4 Body Size when determining if this species can be attacked.

4

Horns

A Carnivore must first lose 1 Population to attack this species.

2

Symbiosis

This species cannot be attacked if your species to the right has a larger Body Size than this species.

1

Warning Call

A Carnivore must have Ambush to attack your species that are adjacent to this species.

3

Fertile

Before the food cards are revealed, this species gains 1 Population if there is food on the Warning Hole.

5

Hibernation

Prevent 1 Population loss due to Cold. When determining if this species is Hungry, you may ignore up to 2 total Population.

6

Biological N₂-Fixation



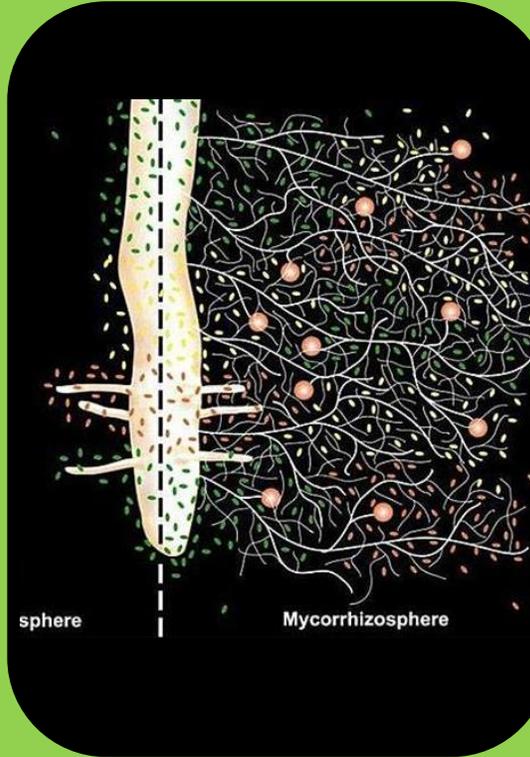
Before the food cards are revealed, take 1 nitrogen from the N bank (Long neck analog)

Carnivorous Plant



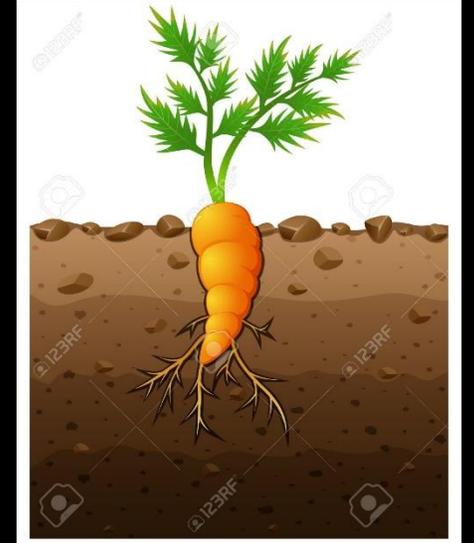
Any time this species immobilizes nitrogen, take 1 additional N from the same source. (Foraging analog)

Mycorrhizal Association



Take 1 nitrogen from the N bank when an herbivore attacks (scavenger analog)

Root Storage



May store nitrogen on this card up to its Biomass Size. Before the Food Cards are revealed, move this nitrogen to the Species Board. (Fat Tissue analog)

Ecosystem Engineer



When this species takes nitrogen, your species (to the right or left) takes 1 nitrogen from the same source (Cooperation analog)

Spines/Thornes



An Herbivore must lose 1 Population to attack this species. (Horns analog)

Woody Stems



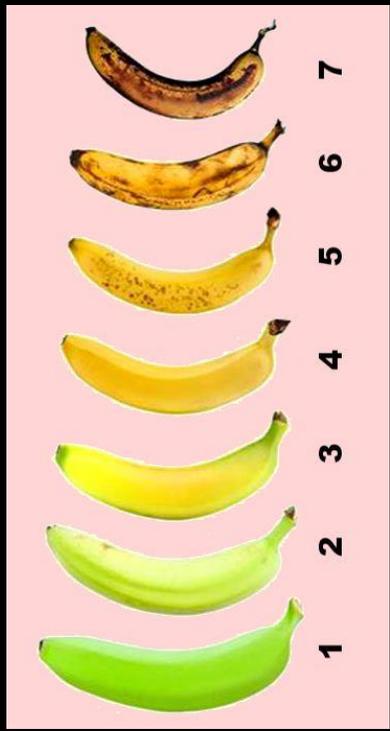
+4 Body Size when determining if this species can be attacked. (Hard Shell analog)

Secondary Compounds



This species cannot be attacked if your species to the (left/right) has a larger Body Size than this species. (Symbiosis analog)

Chemical Signaling



An Herbivore must have “Swarm” to attack your species that are adjacent to this species. (Warning Call analog)

Seed Coat



Prevent 1 Population loss due to Heat/Cold. This species can only be attacked if it is Hungry. (Burrowing analog)

Clonal Propagation



Prevent 1 population loss due to Cold. An Herbivore must be larger in population to attack this species. (Defensive Herding analog)

Aquatic Plant



Prevent 1 population loss due to Heat. An Herbivore must discard a card to attack this species. (Mud wallowing analog)

Resin Production



Prevent 4 Population loss due to Cold. Increase Population loss due to Heat by 1. (Heavy Fur analog)

Night Bloom



Prevent 1 Population loss due to Heat. Before each of your feeding turns, feed this species if there are no Herbivores that could eat it. (Nocturnal analog)

Long-range Dispersal



Prevent 1 population loss due to Heat/Cold. After the last species has fed for the round, take 2 nitrogen from the N bank if the "nitrogen pool" has no nitrogen. (Migratory analog)

Dormancy



Prevent 1 Population loss due to Cold. When determining if this species is Hungry you may ignore up to 2 unfed Populations. (Hibernation analog)

Epiphyte



An herbivore must have Epiphyte trait to attack this species. (Climbing analog)

High Seed Production



High Seed Production – Before the food cards are revealed, this species gains 1 Population if there is N within the “nitrogen pool” (Fertility analog)

Novel trait introduction/ Root exploration



Discard a card(s) from your hand during one of your feeding turns: Herbivore: Negate a trait for this species' next attack. Non-Herbivore: Take 2 nitrogen from the “N-pool”. (Intelligence analog)

CAM photosynthesis



Prevent 3 population loss due to Heat. +2 Body Size when determining if this species can be attacked. (Cooling Frills analog).

Colony Behavior



This species body size is equal to its Population Body Size when determining if it can attack another species (Pack Hunting analog)

Swarming Behavior



Negates Chemical Signaling when attacking. Negates a defensive trait when attacking a species with Long Range Dispersal. (Ambush analog)

HERBIVORE



May attack and eat other species.
Can never eat from N-pool
(Carnivore analog)

Game critique

- The game still relies on intelligent design to increase species survivability.
- There is no immigration or emigration, the game is a closed system.
- I'm not sure the new climate slide-bar is totally logical and (or) represents what actually happens in nature...