

PHANEROZOIC

Components



29 Species cards



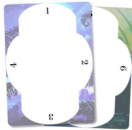
27 Mutation cards



10 Event cards



12 Goal cards



35 Population cards



4 Player aid cards

Quick Overview

Phanerozoic is a simulation of the evolution of life on Earth. Players use mutation cards to give plants and animals new attributes so they can evolve into new species. All players influence the same central plants and animals. After 8 or 6 rounds (depending on the number of players) all players reveal their secret goal and score points accordingly. The player with the highest score is the winner.

Set-up

Setting up the plant and animal rows.

Find the Algae and Trilobite cards, and 2 Population cards.

- 1) Place the Algae card in the centre of the table, with a Population card tucked underneath it so the number 3 shows above the Algae card.
- 2) Place the Trilobite a bit below the Algae card, with a Population card tucked underneath it so the number 1 shows above the Trilobite card.

You've now created a row for living plants and a row for living animals. Leave space to the right of the Algae and Trilobite cards for more plants and animals to be played later.

Setting up the round marker

- 3) Find a player aid card and place it off to the side, with a Population card tucked underneath it so the number 1 shows above the player aid card. This shows that you're starting the game at round 1.

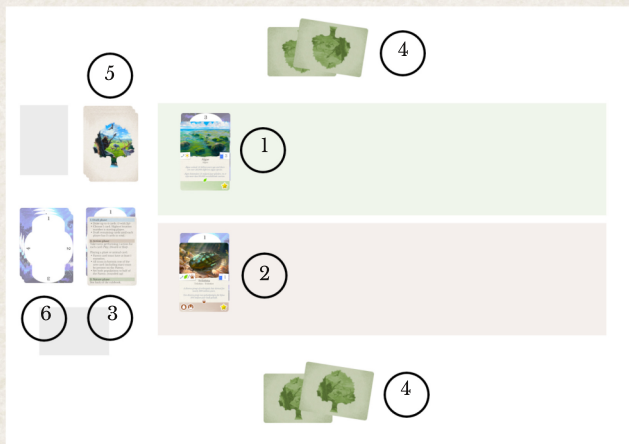
Setting up the goals

- 4) Shuffle the Goal cards and randomly give each player 2 Goal cards, face down. Players can look at their own goals, but keep them secret.

Setting up the decks

- 5) Shuffle all the Mutation, Species and Event cards together and place them face down on the table as the main draw deck. Leave some room next to it for a discard pile and an extinction pile.
- 6) Place the Population cards to the side as a general supply, and place the unused goal cards back in the box.

Set-up



Goal card details

Name of card or icon of attribute that scores points.

Is extinct at the end of the game

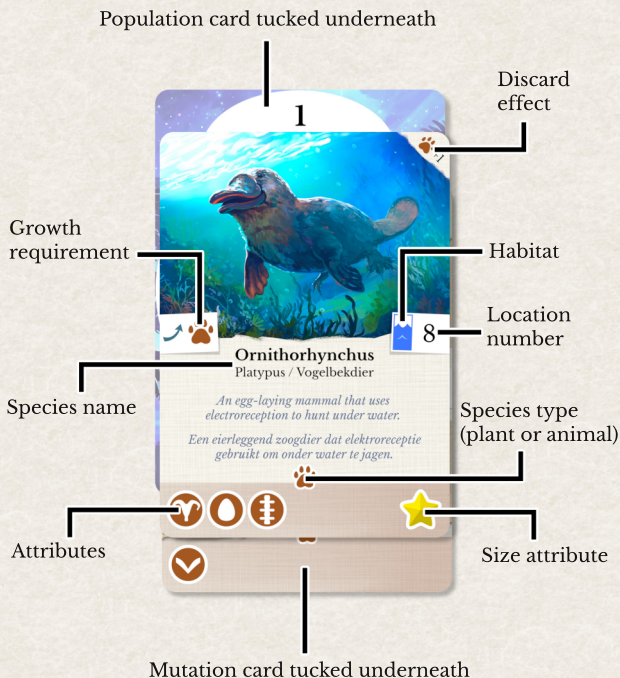


Evolution requirement hint.

Is alive at the end of the game

Points gained or lost for each card.

Species card details



Rounds

Each round consists of 3 phases:

1. Drafting phase
2. Action phase
3. Nature phase

1. Drafting phase

During the drafting phase, players will gather cards that they will then use during the action phase.

At the start of the drafting phase, if there are no plants in the plant row, return the Algae card from the extinction pile to the plant row, with a population of 3.

At the start of the drafting phase, if there are no animals in the animal row, return the Trilobite card from the extinction pile to the animal row, with a population of 1.

Follow the steps below during the drafting phase:

- A. Each player draws cards from the draw deck until they have a hand of 4 cards. (or 5 cards in a 2 player game)
- B. Each player chooses one of their cards and places it face-down in front of them. (all players do this at the same time) All players' unchosen cards are placed face-down in the middle of the table.
- C. All players reveal their chosen cards. The player with the highest location number on their chosen card is the starting player for this round. The chosen cards stay face-up in front of each player.
- D. Turn all the unchosen cards face-up so all players can clearly see them.

E. Drafting starts. The starting player choses one of the unchosen cards and adds it, face-up to their chosen cards. Proceeding in clockwise order, the other players do the same. The last player chooses 2 cards from the unchosen cards, and then drafting resumes in counter-clockwise order. After all players have drafted 2 cards and therefore have a total of 3 chosen cards in front of them, the draft ends.

F. Place all the remaining unchosen cards in the discard pile.

Drafting example



Bob looks at his hand of cards and chooses a mutation card with Roots. Eve chooses the Cicade animal card from her hand. They both reveal their chosen cards and compare the location numbers. Eve's 22 is higher than Bob's 16, so Eve will be the starting player for this round.



The remaining cards from their hands are placed face-up in the middle of the table and Eve picks one of them to add to her chosen cards. Bob now chooses two cards, and finally Eve picks her last card from the ones that are still available.

If the draw deck ever runs out of cards, shuffle the cards in the discard pile and use those as a new draw deck.

2. Action phase

During the action phase, players will use the cards they've chosen to influence the plant and animal rows.

Starting with the starting player and moving in clockwise order, players will take turns performing 1 action until there are no remaining face-up cards in front of players.

For each card, there are 3 possible actions: keeping, discarding, playing.

- Keeping a card

As an action, you may turn one of your face-up chosen cards face-down, to show that you want to keep that card for the next round. In the next drafting phase, all the cards you've kept will be part of your opening hand, meaning you'll draw less new cards to fill your hand up to 4 (or 5 when playing with 2 players)

- Discarding a card

As an action, you may place one of your face-up chosen cards in the discard pile next to the draw deck if you don't want to play or keep that card.

Species cards have an optional effect when they're discarded, shown in the top right corner. This allows you to increase the Population of 1 living plant or 1 living animal card of your choice.

- Playing a card.

As an action, you may play one of your face-up chosen cards, if you meet the requirements to play it. There are 3 types of cards: Mutation, Event and Species. (plant or animal species)

Mutation

Each mutation card has a plant side and an animal side. You can rotate the card and choose which side to use. At the bottom of the card is an attribute icon that represents the mutation. To play a mutation card, first select a living plant or animal card, then slide the appropriate side of the mutation under it so that the icon at the bottom is still visible. A single plant or animal can have multiple mutations.

You cannot select a plant or animal that already has that attribute icon (on the card itself, or on a previous mutation) The only exception to this is the star icon. A card can have multiple star icons from mutations.



Mutation example

Bob plays his mutation card, chooses the side showing Roots, and tucks it under the Bryophyta.

Eve also wants to mutate the Bryophyta and tucks her mutation card with the Flowering side underneath. This plant now has 2 attributes and a size of 1. (1 star)

Event

An event card has an immediate effect, and is placed in the discard pile after using it. See page 15 for an explanation of each event card.

Plant or Animal species

To play a new plant or animal card, you need to select a living parent card from the plant or animal row that it can evolve from. The parent card needs to meet 2 requirements:

1. The parent card must have at least 1 mutation.
2. All the icons in the bottom row of the new card, including the amount of stars, must be present on the parent card and its mutations. If the new card has a growth requirement in the bottom row, the parent card also needs to have that growth requirement.

If there are several cards that meet the requirements, you may choose which one will be the parent card.

Place the new card in the appropriate row (plant row or animal row) and make sure all cards in that row remain in ascending order from left to right, based on the location number. (make some space for the new card if it needs to go in between other cards)

Next, take a Population card from the supply and tuck it under the new card with half of the population of the parent card. (rounded up)

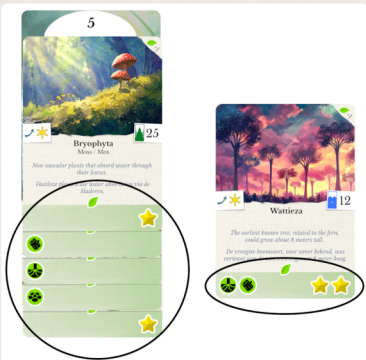
Finally, remove ALL mutations from the parent card (even mutations that weren't needed for this evolution) and halve the population of the parent card. (rounded up)

This represents the species splitting into two branches. The old and the new.

End of the action phase

Players keep taking turns in clockwise order and performing one action each until all cards have been played, discarded or kept. Next is the nature phase.

New species example



Eve wants to play a Wattieza plant, and she chooses Bryophyta (Moss) as the parent.

The Moss has 4 mutations: Large (extra star), Roots, Flowering and Woody. The Wattieza plant requires 2 stars, roots and woody, so the Moss is a suitable parent.

The Wattieza is placed to the left of the Moss, because it has a lower location number.

All the mutations tucked under the Moss are removed, even the Flowering one.

The Moss has a population of 5, so the Wattieza will get a population of 3 (half of 5, rounded up) and the Moss will go down to 3 as well.



3. Nature Phase

During the nature phase, all living plants and animals will be checked to see if they grow, and how they affect the rest of the ecosystem. It's best if one player handles these steps one by one. Players never make choices during the Nature phase, everything happens according to set rules.

First, check all the plants in order from left to right, then do the same for all the animals.

For each card, look at the growth requirement on the card. Most plants require sunlight to grow, while most animals need to eat either plants or animals to grow. (and some can eat both)

When a card grows, double its population, to a maximum of 8. (change the Population card tucked under it to show the new population)

Growth requirements

If a card has a mutation with a growth requirement, this overwrites the previous growth requirement(s).



Sunlight: When a card requires sunlight, it will grow automatically. It doesn't affect the rest of the ecosystem.



Eating plants or animals: When a card requires plant or animal sustenance, this card becomes Hungry, and it needs to eat enough before it can grow.

Determining a target

First, determine a target for the Hungry card in 3 steps:

Step 1. Plants, animals or both. Look at the growth requirement icon to see what this card eats. If the card can eat both types, still only determine one target.

Step 2. Habitat. If a target of the appropriate type is within the same habitat as the Hungry card, that will be the preferred target. If there are no targets within the same habitat, look in other habitats.



Step 3. Location number. If there are multiple possible targets, select the one with the location number that's closest to the Hungry card. If there are still 2 options, choose the one with the lowest location number.

After the target has been set, determine how much will be eaten.

Determining the amount

Compare the size (number of stars) of the Hungry card and the target card.

If the Hungry card is larger than the target, it will eat an amount equal to the Hungry card's full population. If the Hungry card is the same size, or smaller than the target, it will eat an amount equal to half of the Hungry card's population. (rounded up)

Reduce the population of the target card by the amount that gets eaten. If this reduces the population to 0 (or less) then place the target card in the extinction pile.

If the population of the target card was less than the amount that the Hungry card wants to eat, then the remaining population of the Hungry card is still hungry. Determine another target card for the remainder of the amount it wishes to eat.

If the Hungry card has eaten enough, it will grow: double the population of the Hungry card.

If there are no targets for it to eat, or if it is still hungry after eating all possible targets, then the hungry card will shrink instead of grow: halve its population. (rounded up)

Nature phase example

The Moss requires sunlight to grow, so it automatically grows, doubles in Population from 2 to 4.

The Triamya eats plants. There are no plants in the water habitat, so it will eat the Moss. The Triamya is the same size as the Moss, so it will eat an amount equal to half its own Population, rounded up. (1) The Population of the Moss goes down from 4 to 3, and the Triamya doubles from 1 to 2.

The Crow eats plants and animals. There is a plant and an animal in its habitat, but the location number of the Moss is closer to the Crow, so the Moss becomes the target. The Crow is larger than the Moss, so the Crow wants to eat an amount equal to its own full Population. (5)

Bryophyta
Moss - Moss
New vascular plants that absorb water through their leaves.
Première plantes de vase charbonnée via de l'éponge.

Triamya
These tiny beetles were discovered in fossilized ferns from the Late Triassic.
Deses minuscules bêtes ont été découvertes en coprolite au Jurassique.

Corvus
Crows can construct tools from twigs and grass stems to procure food.
Les corvidés utilisent généralement des bâtons ou des tiges d'herbe pour fabriquer des outils.

Tyrannosaurus
One of the largest land carnivores, and with the most powerful bite.
Un des plus gros carnivores terrestres, en fait de la denture forte.

Nature phase example (continued)

The Population of the Moss drops from 3 to 0, so the Moss is placed in the extinction pile. The Crow is still hungry for a Population of 2.

The T-rex becomes the next target of the Crow. The Crow is smaller than the T-rex, so the Crow will eat an amount equal to half of the remaining hungry Population. (1) The T-rex will go down in Population from 3 to 2, and the Crow doubles in Population to 8. (the maximum)

The T-rex eats animals and the Crow is the target. The T-rex is larger, so the Population of the Crow goes down by 2, from 8 to 6. The T-rex doubles in Population from 2 to 4.

End of the round

At the end of the 3rd round, or 4th round in a 2 player game, all players must choose which of their goal cards they will keep. The other goal card is placed back in the box, face-down.

End of the game

At the end of the 6th round, or 8th round in a 2 player game, the game ends. All players reveal their goal cards and count up their points. The player with the most points is the winner.

Each goal card is unique, but they all have the same structure. You can score points for Species and Mutation cards.



Score points for each living card of the specified type if there is a heart in front. And score points for each extinct card of the specified type if there are crossed bones in front. Some goals will give you negative points as well.

Event cards



74

Ideal conditions
Ideale omstandigheden

1 / 1 : +2

In the Carboniferous period, oxygen levels reached about 35%.

In het Carboon tijdperk bereikte het zuurstof niveau 35%.

Choose one living plant or animal and increase its population by 2.



70

Meteorite / Meteoriet

1 / 1 : -3

Thousands of tiny meteorites hit the Earth each year, but large meteorite impacts are rare.

Jaarlijks raken duizenden kleine meteorieten de aarde. Een inslag van een grote is zeldzaam.

Choose one living plant or animal in the shown habitat and decrease its population by 3.



6

Recover / Herstel



Some plants and seeds can stay dormant for many years before they grow.

Sommige planten en zaden kunnen jarenlang in slaapstand verkeren voordat ze groeien.

Choose one card from the discard pile. Immediately perform an action with it.

Solo mode

Set-up: Take 2 random goal cards for the Automa and place them face-up. The automa will score points for both goals.

Draft phase: Draw until you have a hand of 10 cards. Choose 3 of those cards. Skip the rest of the draft phase.

Action phase: The Automa always goes first.

Automa turn: Shuffle the 7 unchosen cards. Reveal the top card and play it if you can. If any choices need to be made, reveal another card and choose the closest target, based on location number. Do this 3 times, so the Automa attempts to play 3 cards.

End of the game: The game ends after 8 rounds.

Difficulty: If you want a greater challenge, keep one of the Automa goals face-down until the end of the game, or add another Automa goal card.

Nature phase quick overview

First, process all plants from left to right, then all animals from left to right.



Growth requirement Sunlight: Grow automatically.



Growth requirement Plants or animals: Select closest target, preferably within the same habitat.

Compare the size: (amount of stars)

- Hungry card is larger than target: Eat an amount equal to the Hungry card's full population.
- Hungry card is smaller or equal size: Eat an amount equal to half of the Hungry card's population. (rounded up)

Grow when the Hungry card has eaten enough: double in population.

Shrink when there is not enough food for the Hungry card: halve in population.

Credits

Game design: Pepijn van Loon

Art: Louise Goalby

Playtesters: Remco de Louw, Erika Valk, Cor van Loon, Marianca van Loon, Marco van Loon, Richard Viguurs, Alexander Viguurs, Ilse Sterk, Esmee Hartings, Brian Jansen.

