



PLAYER'S

Endless Forms

MANUAL

WELCOME
TO THE *Endless*
Forms **CUSTOMIZABLE**
CARD GAME

This is your guide to
Endless Forms.

This edition, presented by the
Asombro Institute for Science Education,
is based on the incredible flora & fauna of
the **Chihuahuan Desert.**

Learn about the hardy organisms that call
this desert home, and use that knowledge
and your own creativity to help your
species survive in this fun,
strategy-based game.

For two players. Recommended for ages 10 and up.



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BASIC CONCEPTS

Endless Forms is based on real organisms and natural science concepts.

This is a **2-player strategy game** where you will draw cards from a shuffled deck and figure out how best to play them. Like other popular card games, you can craft your deck to include the cards that you think will work best together.

Each player has 2 decks: A **habitat deck** with 10 habitat cards in it, and a 40-card **main deck** containing **species cards**, **event cards**, and **effect cards**. Just as in nature, your goal is to survive and thrive. You will attempt to grow the populations of your desert species cards (by placing **counters** like coins or dice on them) as much as possible, while your opponent endeavors to do the same.

At the beginning of the game, habitat cards are drawn and placed in the playing area. Players draw cards from their main deck and take turns placing species cards “in” those habitats. Species may be predators, like a coyote or a rattlesnake, which can only grow their populations if they prey on other creatures. Other species such as insects or songbirds can get what they need (like nectar and seeds) from their habitat, so their populations grow automatically. No animal lives forever, so at the end of each turn all populations decline and lose some counters, and if they reach zero they are removed from the game. The goal of each player is to increase the populations of all of their species as much as possible during each of their 8 turns. **The player with the most population counters at the end of the game is the winner.**

Species may benefit from their own special adaptations, or from symbiotic relationships with other creatures. Playing effect and event cards can also help your species, or hinder your opponent's. Using your own **creativity and ingenuity** to determine where to play your cards, and when, can give you an advantage over the other player, and the cards you choose to include in your deck can give you the best odds of ending the game with the largest population. Exactly *which* cards you draw, however, is up to chance, meaning **no two games will ever be the same!**

CARD TYPES

Each player has 2 decks: A habitat deck containing **habitat cards**, and a main deck containing **species cards**, **event cards**, and **effect cards**.

In this game, every card in your decks must be unique. In other words, **you are not allowed to have any duplicate cards** unless a specific card (e.g., *Chihuahuan Raven*) says that you may.

Learn more about each card type below. Terms like “exert” and “predate” are explained in the *Phases of a Turn* section.

SPECIES CARDS



CONSERVATION NEED

If a ★ appears here, this organism is considered to be a Species of Greatest Conservation Need (SGCN) by the New Mexico Department of Game and Fish. These cards are powerful in the game, but also fragile because of their threatened status.

SIZE RANK

Every species has a size rank, with 1 being the smallest. If this creature is a predator, fangs will appear on either side of this number (e.g., ★15).

Note: In this game, species that feed on insects and other arthropods are not treated as predators.

POPULATION GROWTH & DECLINE RATES

A species gains X population counters when it exerts itself in a habitat, and loses Y population counters during the last phase of every turn.

RARITY KEY

Circles on cards are shaded based on the card's rarity.



COMMON
(no color)

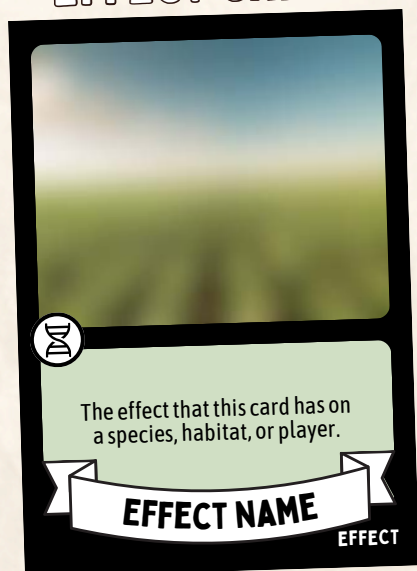


UNCOMMON
(gray-white)



RARE
(purple-pink)

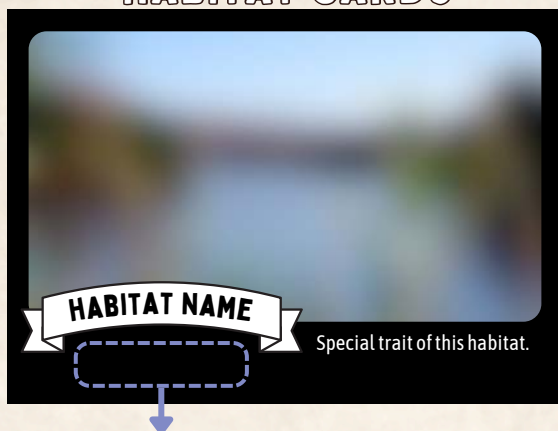
EFFECT CARDS



EVENT CARDS



HABITAT CARDS



SPECIAL HABITAT RESOURCES

Although any species may be deployed to any habitat, some habitats specify particular resources that they offer. Specialist herbivores and insectivores can benefit from being placed at these habitats.



WATER



ALGAE



GRASSES



LEAVES



WOOD



SAP



POLLEN &
NECTAR



SEEDS



FRUITS



ARTHROPODS



HUMANS

SETTING UP TO PLAY

Find a flat surface where you and your opponent can sit facing each other.

You and your opponent each need:

- A 10-card habitat deck made of habitat cards
- A 40-card main deck made of species cards, effect cards, and event cards
- Counters, like coins or dice, to keep track of your species' populations
- A 6-sided die (also known as a D6)

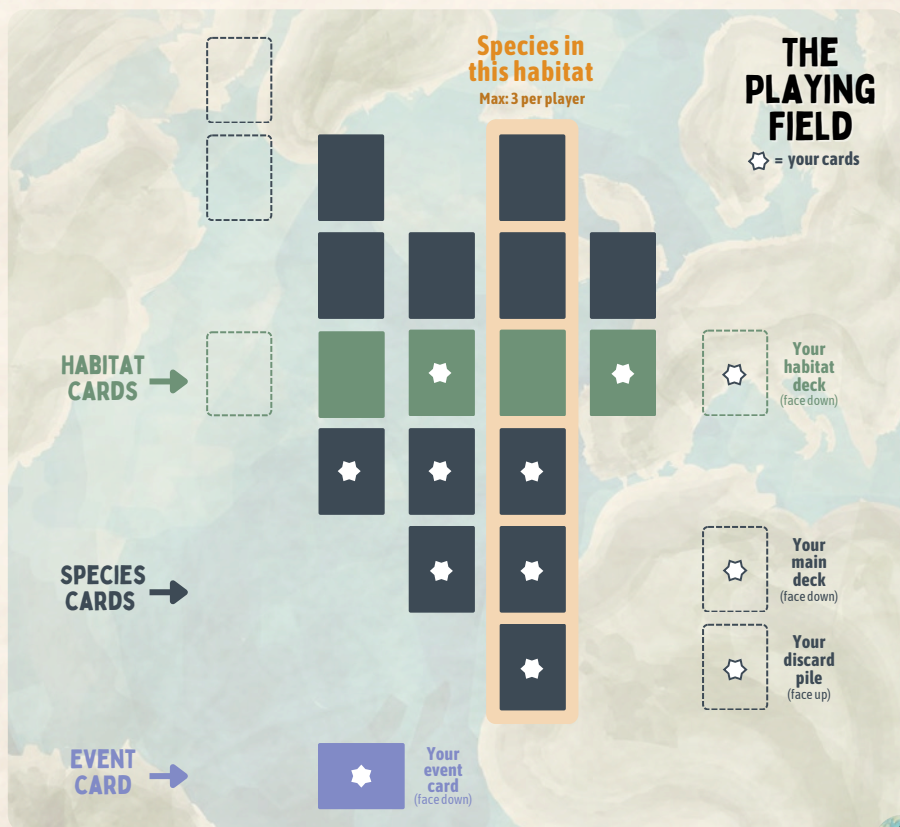
STEP 1 Each player shuffles both of their decks and places them face-down.

STEP 2 Each player draws **8** cards from their **main deck**. You may look at your own cards in your hand, but you may not look at your opponent's. Each player decides whether to keep their hand, or draw a new one (see page 7).

STEP 3 Each player draws **2** cards from the top of their **habitat deck** and places them face-up in the center of the play area in an alternating pattern, as shown below.

STEP 4 Flip a coin or roll a die to see who will take the first turn.

The diagram below shows the placement of cards for an example game in-progress:



PHASES OF A TURN

You and your opponent will each get 8 turns to grow your species populations as much as possible. The game alternates between **Day** and **Night**, with each player getting one turn during each phase. (Tip: Use the turn tracker on the back of this booklet to help you keep track.) The player with the most population counters on their species at the end of **16 turns** is the winner.

DAY				NIGHT			
P1	P2						
1	2	3	4				
5	6	7	8				
9	10	11	12				
13	14	15	16				
Draw 1 card				Draw 2 cards			

1 INITIALIZATION PHASE

On your first turn of the game, you will simply **draw** from your main deck during this phase. The game begins as Day so you will draw 1 card. When it is Night, you will draw 2 cards.

If you have already had a turn and have species that have been exerted (i.e., rotated sideways), you should **un-exert** them (i.e., rotate them back to the normal position) during this phase.

In more detail:

Stage 1: Un-exert any of your exerted species.

Stage 2: Resolve any cards that reference “At the beginning of turn...” (i.e., make their effect happen).

Stage 3: Draw cards for the turn: 1 card if it is Day, 2 cards if it is Night.

2 DEPLOYMENT PHASE

Time to play some cards! During this phase, you may **play 1 card of each type**:

- **Species:** Species are deployed to habitats. Each player may have a maximum of 3 species at any one habitat. Any species can be deployed to any habitat that has room for it. *When you first deploy a species, place as many population counters on top of it as is specified by its population growth rate (X↑, see page 2). See page 4 to see how species cards should be placed in habitats on the playing field.*
- **Effects:** Effects may be attached to species cards, habitat cards, or have other consequences as specified by the text on the card. Place them partially underneath the card they are deployed to so that you can remember that their effect is in action. When a card with an effect attached to it is discarded, that effect card is discarded along with it.
- **Events:** Event cards are played face-down in your event card zone. Event cards can be revealed (turned over) at any time during the game, even during your opponent’s turn. When an event card is revealed, it is resolved (i.e., its text takes effect) immediately, and then it must be placed in its owner’s discard pile. You must wait until your next Deployment Phase to place a new event card in your event zone, and only one event card may be in this zone at any given time.



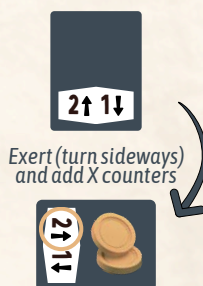
More details on event cards:

Events are important because they “interdict”. Event cards can be played at any time and are resolved immediately. Interdiction means that the card takes precedence and may **interrupt** normal actions. For example, you may intend to play a card to the field, but your opponent can reveal their hidden event just before you do so, requiring that the text of that event card be followed *first*. The only exception is when the first player *also* has an event card and plays it “in response” to their opponent’s event. In these cases, follow the “**last played, first to resolve**” rule. This means that the last event played gets resolved first, followed by the event that was played just before it.

3 EXERTION PHASE ↑

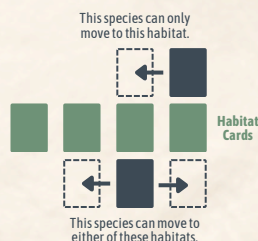
Species must exert themselves at a habitat in order to **grow** (↑) their populations. When they exert, **rotate** them sideways **and add the number of counters specified by their population growth rate (X↑)**. Exert as many of your species as possible, but each only once, and only during this phase.

- Predators may only exert if a species of *their own size rank or up to 2 ranks lower* is present in the same habitat (for example, a predator of rank 4 may predate upon a species of rank 4, 3, or 2). When they exert to **predate**, they gain X counters, and the **selected prey species loses 1 counter**. The same prey species can be preyed upon by multiple predators, losing 1 counter for each. If a prey species loses its last population counter, the card is moved to its owner's discard pile. Predator cards are marked with fangs (see page 2).
- Non-predators may exert to gain X population counters as long as they are at a habitat. Other species do not lose counters when non-predators exert.



4 MOVEMENT PHASE

During this phase, you may **move 1 species** card, including exerted species, to a different habitat if possible. This habitat must be adjacent to (i.e., touching on either side) the habitat the species is currently at, and must have room for it. If you already have 3 species at a habitat, it is full (even if your opponent has space on their side of the field). If you do not wish to move a species, or if no move is possible, proceed to your Termination Phase.



5 TERMINATION PHASE ↓

All species go into **decline** (↓) and lose some population counters during the Termination Phase of every turn. During this phase, both you and your opponent must **remove as many counters from each species as is specified by their population decline rate (Y↓, see page 2)**. If any of your species lose all their population counters at this time or any other, they must be removed from play and placed in your discard pile.

In more detail:

Stage 1: Remove Y counters from all species.

Stage 2: Resolve any cards that reference “At the end of turn...”.

Stage 3: Pass the turn to your opponent.

Your turn is now over.


Important:

The power of your cards comes from the fact that they allow you to **break** these rules. The text on a card may grant you an exception to one (or more!) of the game's rules, so read and follow its instructions carefully.

If a card contradicts what is in the rules of this book, the card is right!

TIPS & REMINDERS

General

- You may not have any duplicate cards in any of your decks unless a card specifically says so.
- You may have any number of species, effect, and event cards in your main deck as long as you do not have more than 40 cards total. A recommended balance for new players is: 20 species, 10 effects, and 10 events.
- When you first deploy a species, place as many population counters on top of it as is specified by its population growth rate (X↑).
- During your Exertion Phase, you can exert any of your non-predators at any habitat. Predators, however, can only be exerted if a suitable prey species is present at the same habitat. A suitable prey species is a species of the same size rank as your predator or up to 2 ranks lower (for example, a rank 4 predator can predate upon any species of rank 4, 3, or 2). Predator cards are marked with fangs around their size rank (e.g. ). (In this game, animals that feed on insects and other arthropods are not treated as predators.) When you exert any species, rotate them sideways and give them X↑ population counters.
- When a species is preyed upon, it loses 1 population counter.
- You may predate upon your own species so long as they are at the same habitat as your predator and are of suitable size rank.
- Being exerted does not prevent a species from being moved, or from being preyed upon.
- All species lose Y↓ population counters during the Termination Phase of every turn (yours and your opponent's). If any of your species lose all their population counters at this time or any other, they must be removed from play and placed in your discard pile.
- Multiple effects can be deployed to the same card.
- Only one event card can be in your event zone at any given time.
- It is important to consider timing when revealing an event card as it can dramatically influence how powerful that event is.

First hand, and hand size

- After you draw your first hand of 8 cards from your main deck, there is no limit to how large or small the number of cards in your hand can be.
- You may choose whether or not to keep your first hand. If you are unhappy with the cards you have drawn, you may shuffle those cards back into the deck and draw a new hand (this process is called a mulligan). In this game, you get 1 free mulligan. After that, if you are still unhappy with your hand, you can repeat the process, but you must draw 1 fewer card each time. Taking more than 2 or 3 mulligans is usually not recommended. A good starting hand will have 1 or 2 effect cards, 1 or 2 event cards, and 4 to 6 species cards. Players must commit to their hands before habitat cards are drawn.

Habitats

- All the species that are deployed to a particular habitat should be placed in a column aligned with that habitat (see graphic on page 4). The order of species within a habitat column does not matter, but your species should stay on your side of the playing field. Remember that you and your opponent may each deploy a maximum of 3 species to one habitat, so a given habitat can have anywhere from 0 to 6 species in it. A predator in a habitat column can choose any suitable prey species within that column.
- If a habitat is copied, the copy becomes a fresh iteration of that habitat with no effects or counters attached.

Turn Tracking

- The "Turn Tracker" on the back of this booklet can help you keep track of whether it is Day or Night, and how many turns remain in the game. You can use a coin or other object to mark the current turn.

STARTER DECK CARD LIST

Asombro Institute for Science Education edition

Habitat Cards (10)

- Agricultural Land
- City Suburbs
- Creosote Scrub
- Desert Arroyo
- Desert Grassland
- Desert Playa
- Gypsum Flats
- Lava Malpais
- Ocotillo Foothills
- River Bosque

Species Cards (20)

- American Badger
- American Kestrel
- Banner-tailed Kangaroo Rat
- Black-chinned Hummingbird
- Black-throated Sparrow
- Creosote Bush Walking Stick
- Coyote
- Chihuahuan Raven
- Gray Vireo
- Greater Earless Lizard
- Greater Roadrunner
- Melon Aphids
- Mexican Honey-pot Ants
- Monarch Butterfly
- Ornate Box Turtle
- Oryx
- Roundtail Horned Lizard
- True Cochineal Bug
- Turkey Vulture
- Western Hognose Snake

Effect Cards (10)

- Aesthetic Choice
- Artificially Sustained
- Environmental Homogenization
- Insect Swarm
- Mutigen
- Pack Hunt
- Pathogen
- r-Strategist
- Stable Climate
- Wicked Reflexes

Event Cards (10)

- Conservation Effort
- Drought
- Echoed Form
- Ecological Succession
- Hyper-Adaptive Fauna
- Limited Resources
- Offroading Degradation
- Once Thought Extinct
- Rites of Spring
- Wildfire!

GLOSSARY

Ability: The bold text on a species card that grants it a special power in the game. (E.g., **Keen Eyes:** *This species may predate in an adjacent habitat.* This also includes text such as “+1↑ at 🌿 habitat”).

Adjacent: Adjoining or neighboring. If a habitat card is touching another on its right or left side, it is adjacent to that habitat (see page 6 for an example).

Blanched: A term applied to species who have adapted to blend in to a light-colored environment (like White Sands) by becoming more pale in color. See also: Melanic.

Counter: An object like a coin or die that is used to keep track of the size of a species' population throughout the game. If a species currently has a population of 5, it should have 5 coins on it, or one die showing the value 5.

D6: A six-sided die. If you don't have one, google “D6 roller” to roll a virtual die.

Day: One of two game phases. The game alternates between Day and Night, with each player getting one turn during each phase. The game starts as Day. If it is Day, you draw 1 card during your Initialization Phase.

Deploy: When you play a card from your hand to the playing field. Species cards are deployed to habitats. Event cards are deployed to your event zone. Effect cards are deployed to another card (place effect cards under the card they are deployed to with the effect name showing underneath).

Effect Card: A card in your main deck that is deployed to (attached to) another card. Its effect remains in place as long as the card is in play.

Event Card: A card in your main deck that is deployed face-down to your event zone. It may be revealed (turned over and enacted) at any time.

Event Zone: The area on your side of the playing field where you play your event card face-down.

Exert: Turning a species card sideways so that it may gain as many population counters as its population growth rate specifies (see X↑). Predators may only exert if a prey species is present in the same habitat.

Group: The animal group (or “taxon”) that a species belongs to (e.g., amphibian, reptile, bird, mammal, arthropod).

Habitat Card: The only type of card in your habitat deck. Placed in the center of the playing field. Any player can deploy up to 3 species to any habitat.

Habitat Deck: Your 10-card deck of unique habitat cards.

Herbivore: An animal who eats plants.

Initialization Phase: The first phase of your turn during which you draw a card and un-exert your species.

Main Deck: Your 40-card deck composed of species cards, effect cards, and event cards (all unique).

Melanic: A term applied to species who have adapted to blend in to a dark-colored environment (like a lava flow) by becoming darker in color. See also: Blanched.

Movement Phase: The second-to-last phase of your turn during which you may move 1 deployed species to an adjacent habitat.

Mulligan: Process during which a player changes out the cards in their first hand at the beginning of the game. See page 7.

Night: The game alternates between Day and Night, with each player getting one turn during each phase. If it is Night, you draw 2 cards during your Initialization Phase.

Population: The number of population counters a species currently has. “A population” means 1 population counter.

Predate: When a predator is exerted in a habitat. When this happens, the predator gains X↑ counters, and the selected prey species loses 1.

Predator: A carnivorous species that must eat other animals to survive. These cards are marked with fangs on the bottom right of the card where their size rank appears (e.g., 15↑). In order to exert to grow their population, a predator must select a suitable prey species at the same habitat (see Prey).

Prey: A prey species for a particular predator is one that is at the same habitat and has a size rank equal to that predator or up to 2 sizes smaller. For example, a predator of rank 5 may choose to predate upon another species of rank 5, 4, or 3.

Rank: see Size Rank

Resolve: A card is resolved when its text has taken effect.

Size Rank: A number assigned to each species that appears on the lower right of the card. Rank matters when predators are selecting prey (see Predator, Prey).

Special Habitat Resources: The symbols (e.g., 🌱 🍄 🐛) that appear on habitat cards. Species with abilities like "+1↑ at 🌱 habitat" benefit from being deployed to habitats with these symbols.

Species Card: A card in your main deck that is deployed to a habitat if possible. Species must be exerted during their owner's Exertion Phase in order to gain population counters. The player with the most counters on their species at the end of the game wins.

Termination Phase: The final phase of your turn during which all species lose as many population counters as their population decline rate (Y↓) specifies.

Un-exert: Turning a species card right-side up during your Initialization Phase so that it is ready to exert again.

X↑: The population growth rate of a particular species. This number appears at the bottom center of the card. When a species is first deployed to a habitat, or is exerted in that habitat, place this many counters on it.

Y↓: The population decline rate of a particular species. This number appears at the bottom center of the card. At the Termination Phase of every player's turn, this many counters are removed from the card.

↑: Growth, or grow (e.g. "exert to ↑" can be read as "exert to grow"). Population growth occurs during the Exertion Phase of each player's turn, and is when counters are added to species cards.

↓: Decline (e.g. "during ↓" can be read as "during decline"). Population decline occurs during the Termination Phase of every turn, and is when counters are removed from species cards.

NEED MORE HELP?

Have questions about a rule or a specific game scenario?

Want to know how to get more cards?

Have any other questions, comments, or feedback?

Don't hesitate to contact us.

We'd love to hear from you!

Send an email to
EndlessFormsGame@gmail.com

Message us
@EndlessFormsGame
on Facebook or Instagram

Or visit
www.asombro.org/EndlessFormsGame

Acknowledgements

We would like to express our heartfelt gratitude for the Asombro Institute and all of their support in producing the first edition of *Endless Forms*. We are especially thankful to Stephanie Bestelmeyer for her gracious encouragement and to Jeremy Lane for his enthusiasm and valuable help with editing and play testing.

We would also like to thank those who generously contributed photos for the first edition starter deck: Alex Wild, Brandon Bestelmeyer, Owen McKenna, and Natalie Wells.

Finally, we thank our players. We hope that you find inspiration and joy in the natural world.

“It is interesting to contemplate an entangled bank, clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth, and to reflect that these elaborately constructed forms... have all been produced by laws acting around us...

There is grandeur in this view of life,
with its several powers,
having been originally breathed
into a few forms or into one;
and that, whilst this planet has
gone cycling on according to the
fixed law of gravity,
from so simple a beginning
endless forms most beautiful
and most wonderful
have been, and are being, evolved.”

(Charles Darwin.
1859

TURN TRACKER

DAY		NIGHT	
P1	P2		
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
Draw 1 card		Draw 2 cards	