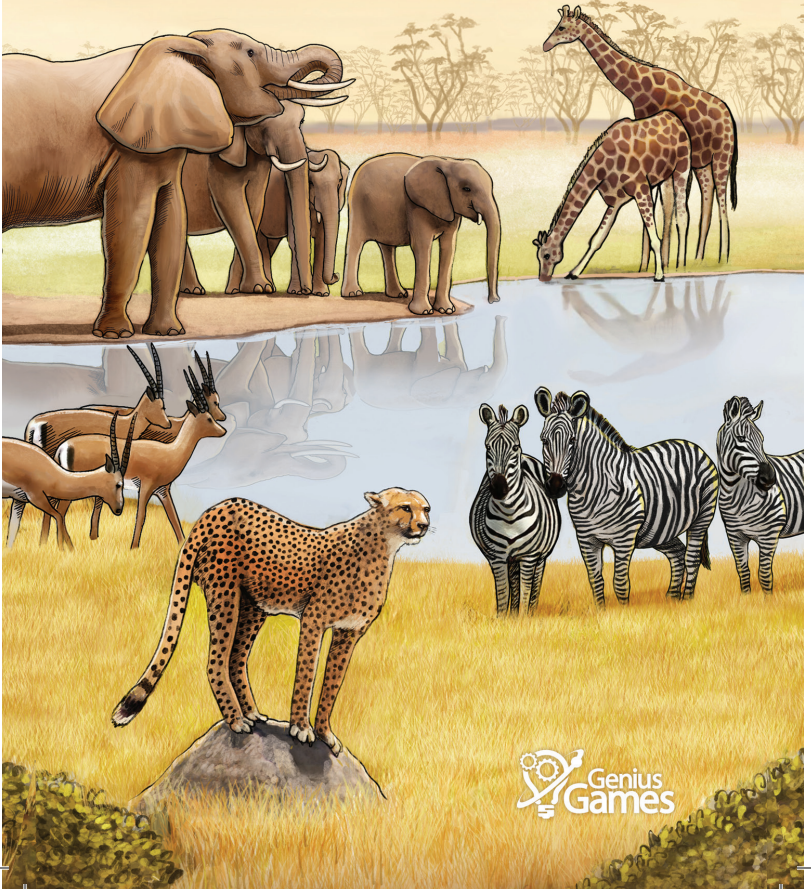# ECOSYSTEM
SAVANNA

By Matt Simpson, Steve Schlepphorst, & Daniel Dávalos

Genius Games

PLAYERS: 2 – 6   AGE: 8+   TIME: 15 – 20 MINS

Ecosystem: Savanna is a card drafting game in which each player creates a beautifully diverse and thriving ecosystem. Players pick cards from among the available animals and landforms, arranging them into personal grids of 20 cards (their "ecosystem"). Each type of card awards points for placing it where it will flourish. Players have many opportunities to earn points as they craft their ecosystems and find ways to build balanced and diverse communities. When all cards have been selected and placed, the player with the highest-scoring ecosystem wins!

SETUP AND OVERVIEW

Give a player aid to each player. Shuffle the deck of cards and deal 11 cards to each player for Round 1, setting the remaining cards aside until Round 2.

Scan the QR Code to watch the rules instead!

To begin playing *Ecosystem,* each player looks at their hand of cards and **selects one to keep**, placing it face down in front of them. Once all players have selected a card, they **simultaneously reveal the cards and place them** into their ecosystems. Each **player's hand of cards is then passed to the left,** so that each player will receive a new hand of the same number of cards from the player to their right, in a clockwise circle. The players' next selections will come from this new hand.

Play continues in this way until each player has placed 10 cards (with 1 unplayed), signifying the **end of Round 1**. Set aside the unplayed cards and **deal each player 11 new cards** for Round 2. **Play proceeds** in the same way, except that players will **pass cards to their right,** circulating counterclockwise this Round. At the end of Round 2, players score the 20 total cards in their ecosystems to determine the winner.

PLACING CARDS

Each time a player selects a card, they will place it into their ecosystem. A player's **ecosystem** is their personal grid of cards, arranged on the play area in front of them. When players place new cards, they must observe the following rules:

1. Starting with the second card selection, new cards must always be **placed adjacent to an existing card**. "*Adjacent*" *in this game always means left, right, above, or below – not diagonally.*

2. Players' ecosystems will eventually make a grid **4 cards high and 5 cards wide**. New cards may never be placed in a location that would exceed this size, and the full 4x5 grid will eventually be completely used. Players add their early cards to their ecosystems in any directions they choose. However, once a player has placed into a 4th row or 5th column, they may no longer expand farther in that direction.

The outlined spaces are available for the next card placement.

As long as players observe the placement rules above, they may place new cards in their ecosystem anywhere they choose (though some options may be strategically preferable). At the end of the game, they will score **points** for each card according to the rules for that card type.

THE CARDS

Ecosystem: Savanna features 3 types of Landform cards and 8 types of Animal cards. Most of these score points for being placed in their preferred environments, near other suitable cards. Several of the cards will **Flip** other cards face down during scoring, representing a successful hunt and enabling other animals to scavenge.

WATERING HOLES score **2** points for each *different* type of Animal card adjacent to the Watering Hole. *(Remember that adjacent means left, right, above, or below – not diagonal.)*

The Watering Hole will score 4 points, counting the adjacent Giraffes and Lion. The pair of Giraffes only count as one type of animal, and the Hyena is not adjacent to the watering hole. The Tree above the Watering Hole is not an Animal.
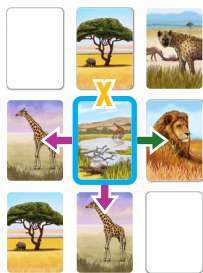

GRASSLANDS score in groups, based on the number of adjacently connected Grassland cards: score **1/4/9/16** points for 1/2/3/4+ Grassland cards. A player may score multiple groups of Grasslands, but a single continuous group of Grassland cards scores a maximum of 16 points.

TREES: When scoring Trees, count **2** points for each row and column that has at least 1 Tree in it. Players score each row and column that contains a Tree, but do not receive more points for having multiple Trees in the same row or column. *(Staggering Trees scores more points.)*

GAZELLES score **2** points each. Additionally, the player with the most Gazelles scores **5** extra points, and second most scores **2** extra points. Players must have at least 1 Gazelle to score extra points. If players **tie** for a Gazelle reward, all tying players earn full points. However, if players tie for most Gazelles, the "second most" reward would not be given.

ZEBRAS score **3** points for each adjacent Grassland.
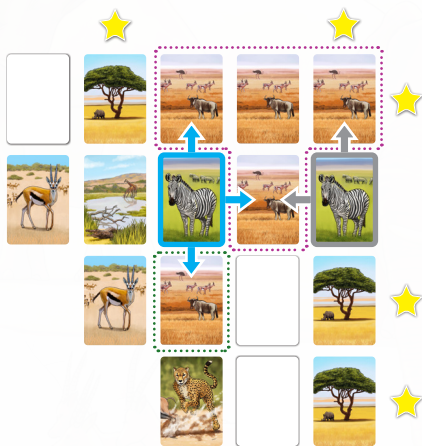
There are currently 2 groups of Grasslands: a group of 4 Grassland cards (16 cards) and a single Grassland (1 point).

There are Trees in 3 of the rows and 2 columns, earning 10 total points.

The pair of Zebras score 9 points and 6 points. Note that a single Zebra can score for multiple Grasslands, and both Zebras can score for the same Grassland.

GIRAFFES score **5** points if they are adjacent to a Tree. If not, they score 0. Being adjacent to multiple Trees will not score more points.

CHEETAHS score **3** points for each Gazelle on the same diagonal (in any direction). During scoring, Flip facedown any Gazelles scored by at least one Cheetah (you *must* do so).

LIONS: For each Lion that is adjacent to a Grassland, during scoring, Flip one face-up Gazelle or Zebra in your ecosystem face down and score **4** points. Lions must be adjacent to a Grassland *and* Flip a Gazelle or Zebra in order to score.
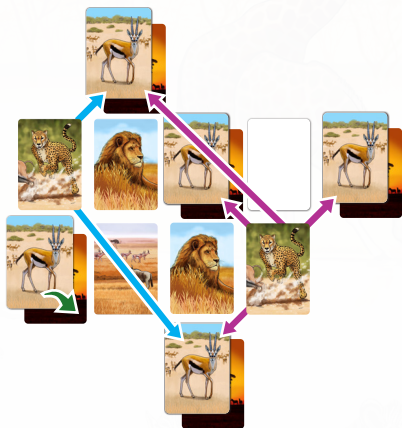

At scoring time, these Cheetahs would score *6 points* and *12 points* for the Gazelles placed diagonally.

Then, since both Lions are adjacent to Grasslands, they would be eligible to Flip a face-up Gazelle or Zebra. However, with only one remaining Gazelle, only one *Lion* would be able to do so, scoring *4 points.*

ELEPHANTS score **6** points, **-2** points for each adjacent Animal, *not* including other Elephants or Flipped cards.

HYENAS score **3** points for each Flipped card within 2 spaces in any direction.

VULTURES score **4** points for each Flipped card lower in the same column (↓).
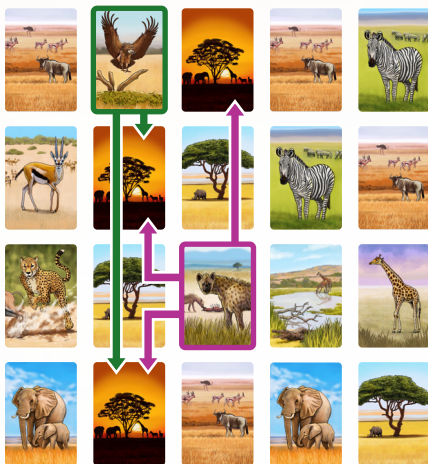
The Cheetah Flipped several cards earlier during scoring. The Hyena now scores 9 points, scavenging from nearby Flipped cards. Note that counting 2 spaces away allows it to score the nearest diagonal cards.

The Vulture scores 8 points for the Flipped cards lower in its column.

SCORING

After all players have completed their 20-card ecosystems, it's time for counting up their scores. Using the scorepad, players should record their scores for each card type, in the order shown in the rules and on the scorepad. Cheetahs and Lions will Flip their prey when scored.

The player with the most points wins! If players tie, they share the victory.

FULL SCORING EXAMPLE

PLAYERS	E	N	P
WATERING HOLES	12	4	12
GRASSLANDS	10	16	9
TREES	8	4	6
GAZELLES	11	2	6
ZEBRAS	9	12	9
GIRAFFES	10	5	10
CHEETAHS	6	3	3
LIONS	4	8	4
ELEPHANTS	10	8	12
HYENAS	6	6	12
VULTURES	0	8	8
TOTAL	86	76	91

EXAMPLE: *Esther scores her ecosystem.*

Esther's Watering Holes each score 6 points for having 3 unique adjacent Animals. She scores 9 and 1 for her Grassland groups. She has Trees in 2 different rows and 2 different columns, and scores 8.

Esther earns 6 points for having 3 Gazelles, and an additional 5 points because this was the most Gazelles among ecosystems. She scores 9 total points for her 2 Zebras, which "share" some of the Grasslands. Her Giraffes are both next to a Tree, and score 5 points each.

During Cheetah scoring, Esther scores 6 points and Flips 2 of her Gazelles face down (this does not affect Gazelle scoring). Her Lion is next to a Grassland, so she Flips a Zebra and scores 4 points – she had other options to Flip, but this one maximizes Hyena scoring.

Esther scores 6 points from the Elephant in the corner, and 4 points from her other Elephant: she lost 2 points for the adjacent Cheetah (the Flipped Gazelle does not count against her).

Her Hyena scores 6 points for the 2 Flipped cards it can reach. Esther has no Vultures.

Adding up her points, Esther has 86 points, and finishes in a close 2nd place to Pippa.

2-PLAYER GAME RULES

For a 2-player game, deal a third hand of 11 cards on an unused player aid for a neutral player. When passing cards, the neutral player aid is included in the rotation (so that one player will always be passing to the neutral player in Round 1 and the other player will be passing to the neutral player in Round 2).

After both players have made each selection, **randomly remove one of the cards from the neutral player hand** and set it next to the neutral aid face up in a pile. Players may look at these cards at any time, but they are not placed. Ecosystem placement and scoring proceed as normal, except that the **neutral player's Gazelle cards are compared** when scoring most Gazelles.

SOLO GAME RULES By Richard Wilkins

For a solo game, shuffle the deck and deal yourself a single hand of 10 cards. You will use your cards to build your own ecosystem (according to the normal rules), but will also discard cards into a second ecosystem for Swala, your opponent.

Each turn, place 1 card into your ecosystem according to the normal rules, then choose 1 card to discard. The discarded card will be played into Swala's ecosystem, creating a 4x5 grid, one row at a time. Play Swala's card in the top-left space and proceed left to right, row by row, until you reach the bottom-right.

After discarding to Swala's ecosystem, draw 1 new card from the deck. **If Swala has just finished a completed row, draw 5 new cards instead.** Continue playing in this way until your ecosystem is complete and Swala has finished her 4th row (20 total turns).

To score the game, calculate both scores like normal (if Swala has any Lion cards, you choose which Gazelle or Zebra to Flip, if there are any). Your goal is to beat Swala by 55 points for an **easy** victory, 75 points for a **normal** victory, or 85 points for a **difficult** victory.

THE SERENGETI SAVANNA

Ecosystem: Savanna features species found in the Serengeti savanna in Tanzania. The savanna is a grassy woodland with widely spaced trees and seasonal rainfall. ***Ecosystem: Savanna*** models the diverse animal life of the grassy African savanna, where water is scarce, herbivores travel long distances to graze, and hunters stalk through the brush.
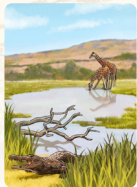
During the dry season, **Watering Holes** provide vital drinking water for the savanna's inhabitants, many of which must drink daily to survive. Without them, the savanna couldn't support its diversity of life.

The **Grasslands** of the Serengeti span nearly 12,000 square miles, and support millions of animals who call it home. The word Serengeti means "endless plains."

Some species of **Acacia Trees** have sharp thorns for protection from hungry herbivores, and others even form symbiotic relationships with colonies of stinging ants.

Thompson Gazelles *(Eudorcas thomsonii)* travel seasonally across the Serengeti as part of the Serengeti Great Migration, the largest animal migration in the world.

Zebras *(Equus quagga)* use their stripes to camouflage themselves in tall grass, and sleep standing up in order to make a quick getaway if attacked.

A **Giraffe's** *(Giraffa tippelskirchi)* blueish-purple tongue is nearly 2 feet long, perfect for stripping leaves from high up branches and navigating around sharp thorns.

Cheetahs *(Acinonyx jubatus)* are unique among big cats. They can't roar, they hunt during the day, and their claws aren't fully retractable, which gives them extra grip when they run.

Lions *(Panthera leo)* are the only cats to live and hunt in a group. The females hunt at night, especially during storms when their sound is masked by wind. They use hunting strategies that take advantage of hunting in a team.

An **Elephant's** *(Loxodonta africana)* trunk has around 150,000 muscles and is perhaps the most sensitive organ found in any mammal.

Hyenas *(Crocuta crocuta)* live in groups of up to 130 and are incredibly intelligent, even able to count and compare sums. Though they sometimes scavenge, they also work together to hunt zebra, antelope, and wildebeest.

While **Vultures** *(Trigonoceps occipitalis)* prefer fresh carrion, they also eat rotten carcasses that would be toxic to other animals. Cleaning up these carcasses helps prevent the spread of disease amongst the herds of the savanna.

Original Ecosystem Design: Matt Simpson

Savanna Adaption: Steve Schlepphorst, Daniel Dávalos

Development: Steve Schlepphorst, John J. Coveyou,
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