

THE MATING GAME

RULE BOOK



2-6



10+



20 mins



PANGOLIN
GAMES

Welcome to The Mating Game! It's that time of year again—time to try your luck at passing on your genes! You'll play as a male of several animal species and it will be your job to attract as many females as you can. The more females you attract, the more you'll reproduce and the more your genes (which are the best, right?) will be passed on to future generations. You can use any mating strategies you can afford, but beware! You'll have to find the right balance between attracting a mate and staying alive if you want to win!

DID YOU KNOW?

This game has been carefully designed by scientists, gamers, and artists to convey complex biology concepts in an engaging and intuitive way. It teaches the fundamental concepts of **Sexual Selection** most often taught in a high school or introductory college biology class and has been designed to be used in those settings with its short playtime, intuitive game play, and modular design. Sexual Selection is a companion to the better-known **Natural Selection**, both of which are mechanisms proposed to explain how evolution works. Natural Selection states that the environment selects which individuals survive long enough to pass on their genes, and Sexual Selection states that competition for mates selects which individuals will find a mate and pass their genes onto the next generation. The best part is that you don't need to worry about any of this while you play; the game will teach you as you go!

GAME COMPONENTS



1 Deck of 78 Strategy Cards
30 Combat (red)
30 Flashy (blue)
18 Special (green)



16 Meeples
(8 Blue, 8 Red)



6 Nest Trackers



6 "Out to Lunch" Cards



6 Combat Dice



1 Game Board



24 Environment Cards
8 Core Deck (no icon)
8 Stable (S icon)
8 Variable (V icon)

GAME ICONS



Food

How much **Food** it costs to play a **Strategy**. On an **Environment** card, dictates how resource rich that **Environment** is and how much **Food** every player gains that turn.



Fitness

How attractive you are. Determines how many **Females** you will attract if you make it to the attract phase. It also determines how many dice to roll during combat (if you're a **combat Strategy**).



Predator

On a **Strategy** card, determines how susceptible that **Strategy** is to predation. On an **Environment** card, shows how many predators are in that **Environment**, and thus how many **Strategies** must be discarded (unless the player pays the "escape" cost).



Female Scarcity

Only on the **Environment** cards. Shows how many fewer **Female** meeple there are in the **Environment**. Remove one **Female** meeple of each color color from the stands for each **Female Scarcity** icon in an **Environment**.



Offspring

Tracks the number of **Offspring** each player has. Set to 0 at the beginning of the game. First to 10 **Offspring** wins!



SET-UP

1. Place the gameboard in the middle of the table where everyone can reach it.
2. Place **Females** ★ in each **Stand** (red and blue) equal to the number of players +1.
3. Give a **Nest** tracker to each player.
4. Shuffle the **Strategy** deck and place it face-down on the table beside the game board.
5. Deal each player 5 **strategy** cards and 1 "Out to Lunch" card. Players may look at these cards.
6. All players set their **Nest** tracker to 5 **Food** 🍏 and 0 **Offspring** 💧.
7. Environment deck: for a normal game, play with the stable environment. Shuffle the core environment deck (no symbol in the bottom right corner) and the stable environment deck (S symbol in the bottom right corner) and shuffle them together. Place the variable environment cards (V symbol) back in the box. Place the environment deck next to the gameboard, near where the environment section of the board.
8. *For experienced players:* To play with the variable environment, shuffle the core environment and variable environment decks together. Put the stable environment deck back in the box.

OVERVIEW

In nature, males and females have different things to worry about when it comes to mating. Females spend a lot more energy and time on their offspring and so are much more selective when it comes to picking a mate. Males, on the other hand, spend relatively less time and energy on their offspring (though there are always exceptions) and so are much less selective. This has led to a situation where males try to mate as often and widely as possible and females try to only mate with males they think will provide their offspring with the best chance at survival (for example because they have great genes or can provide shelter or food). These choosy females have forced males to compete amongst each other for their chance to mate! In this game, you'll learn how animal males do this!

Use Strategies to convince **Females** that you're a worthy suitor! A player wins by attracting more **Females** (and thus getting more **Offspring**) than any other player. The first player to get 10 **Offspring** wins!

HOW TO PLAY

The game is played in turns and continues until a player wins. There are five phases in each turn:

1) Play a Strategy (Play & Pay Phase)

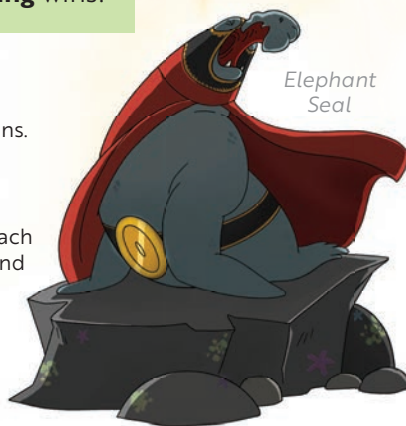
Players play a **combat** or **flashy** Strategy from their hand. Each Strategy comes with a different **Food** 🍏 cost, **Fitness** 🦋, and **Predator** 🦋 score. Figuring out which Strategies to play when is an important part of winning the game, but in the beginning its best to just pick one and go for it!

2) Survive Phase

Turn over an **Environment** card and place it in the **Environment** section of the board. **Environment** cards represent how much **Food** 🍏 is available to the different males, but watch out! Surviving in nature can be tricky, and some **Environments** have hidden dangers!

3) Attract Phase

Different Strategies compete in different ways. Males who use **combat** Strategies try to keep other males from mating, while males using **flashy** Strategies focus on being the most attractive to the **Females**. At the end of this phase, **Females** make their choices and move to the Strategies that are still in play.



Elephant Seal

QUICK GUIDE

1. Play your Strategy

Pay the 🍏 cost of the card

2. Survive Phase

Check for 🦋 & 🦋 and gain 🍏 from the Environment

3. Combat Phase

Red only: Roll 🎲 = 🦋; winner gets 🦋 = 🦋

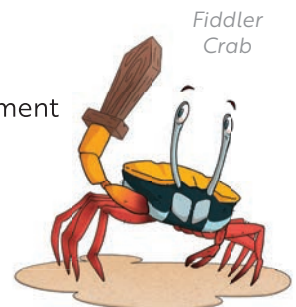
4. Mating Phase

Earn 🦋 = 🦋

5. Draw and Manage Hand

Discard what you want, draw to 5.

Always keep the "Out-to-Lunch" card in your hand.



Fiddler Crab

4) Mating Phase

Players receive their **Offspring** 🦋 for the round! Players will receive one **Offspring** 🦋 for each **Female** their Strategy attracts.

5) Discard & Draw Phase

Players discard any Strategy cards from their hand they don't want, then draw to five total (not counting the Out-to-Lunch card). This marks the end of the round, and players will go back to the Play & Pay phase for the next round.

Special Strategies

Instead of playing **sneaky** Strategies in the beginning, players use **sneaky** Strategies throughout the round to increase their chances of attracting **Females** during the turn (or interfere with the Strategies of other players!)

DID YOU KNOW?

There are millions of animal species in nature and so there are lots of different strategies that both females and males use to pass on their genes. But in almost every case, males invest more energy in finding a mate while females invest more energy in producing offspring. This fundamental difference between the sexes is one of the ways the two sexes are defined in the first place!

PLAY & PAY PHASE

Don't be shy, step right up, it's time to choose your **Strategy**! Do you have what it takes to win the mating game? I guess we'll see!

REGULAR STRATEGIES

Players must choose a **combat** or **flashy** Strategy from their hand to play (they cannot choose a **sneaky** Strategy). Then, players place their Strategies facedown around the gameboard. Once all players have chosen a Strategy, turn all Strategies face up at the same time and players pay their Strategy's Food 🍏 cost.

- Players must be able to pay the Food 🍏 cost of the Strategy before playing it. Players "pay" for their Strategy by adjusting their Nest tracker.
- A Strategy's Fitness 🐼 shows how many Females 🐼 that card can attract. Players will receive one Offspring 🐼 for each Female 🐼 their Strategy attracts.



OUT-TO-LUNCH

A player can choose not to play a Strategy, even if they have enough Food 🍏 to do so. However, they shouldn't tell other players they're not going to play. Instead, they should play their "Out to Lunch" card face down as if they were playing a **combat** or **flashy** Strategy. "Out to Lunch" cards:

- Do not cost Food 🍏 to play
- Do not stay in play during the other phases of the turn
- Can't attract Females 🐼
- Still gain a player Food 🍏 from the Environment



Giant Panda

DID YOU KNOW?

All the strategies in the game are based on strategies that animals use in the real world. Most animals actually use a mixture of combat, flashy, and sneaky strategies to find a mate. The sneaky strategies are especially important because they help animals that otherwise wouldn't be able to mate, because they're not strong enough to win combat or flashy enough to attract females. How many different strategies are there in the game? Which is your favorite?

SNEAKY STRATEGIES

But wait, what about the **sneaky** Strategies? **Sneaky** Strategies are in players' hands just like the **combat** and **flashy** Strategies but are played throughout the turn to change the outcome of different phases!



There are a variety of **sneaky** Strategy cards: some protect you from the negative effects of the **environment**, some help you get more Offspring 🐼 if you do attract a mate, and some interfere with your opponents' ability to attract a mate! **Sneaky** Strategies have a Food 🍏 cost, but no Fitness 🐼 or Predator 🐉 icons.




- A player must have a **combat** or **flashy** Strategy currently in play to play a **sneaky** Strategy.
- A player must be able to pay the Food 🍏 cost before playing a **sneaky** Strategy.
- Players may play as many **sneaky** Strategies as they want each turn as long as they can pay the Food 🍏 cost for each one.
- Rules for playing a **sneaky** Strategy and what effect it has are written on the card itself. If it says "Play after...", it means play at the end of that phase, but before the next phase begins. If it says, "Play before ...", then the card must be played before any normal actions are taken for that phase.
- For any questions about effect interactions, refer to the FAQ at the end of this rulebook.




SURVIVE PHASE

Does your **Strategy** have what it takes to survive your **Environment**? Draw an **Environment** card and find out!



ENVIRONMENT CARD

After playing **Strategies**, place the top card from the **Environment** Deck FACEUP in the **Environment** section of the board. Only one **Environment** is drawn each round and it affects all players at the same time.


- If there are **Predators**  or **Female Scarcity** , resolve those effects first.
- All players gain (or lose!) the amount of **Food**  on the **Environment** card, even if they are "Out to Lunch".

Environment cards show how much **Food**  is in the **Environment** and whether there are any **Predators**  or **Female Scarcity** .

FEMALE SCARCITY

If there is a  on the **Environment** card, it means that there is something in this **Environment** affecting the number of **Females**  available to mate!

Remove a number of **Females**  from each **Stand** on the board equal to the number of **Female Scarcity**  icons.


EXAMPLE: if you drew an Environment with 2 Female Scarcity  icons, then you would remove 2 Females from the blue Stand and 2 Females from the red Stand.





DID YOU KNOW?

In nature, animals must balance attracting a mate with surviving in their environment. This affects the kind of strategies they can use, how often they mate, and how much time and energy they invest in mating. How does the Environment deck affect the way you play the game?




PREDATION




If there is a  on the **Environment** card, it means a **Predator** has appeared! Terrified, all the males run away!

Strategies have their own **Predator**  icon with a number inside of it. The **Strategy** with the lowest value in their **Predator**  icon is the most likely to be caught and will be eliminated from the round (the predator caught and ate that male!).



ESCAPING PREDATION

The player with the **Strategy** with the lowest predator value may pay 3 **Food**  to escape the **Predator**  (they must pay this cost before earning **Food**  for the turn). If they do, then the predator effect is resolved and play continues. If they don't, they discard the **Strategy** immediately. That player does not advance to the next phase this turn (they will have a chance to play again next turn).

- If a player chooses to pay **Food**  to escape a **Predator** , the predator threat is over – it does not pass to the **Strategy** next lowest predator value.
- If two or more **Strategies** have the same **Predator**  value, then players roll a die to decide who is eaten.

REMINDE ME! BOARD ICON

 =    Pay 3 **Food** to escape a predator!

ATTRACT PHASE

All **Strategies** that survive the **Environment** move on to try and attract a mate!

COMBAT

If more than one player plays a **combat Strategy** card in a turn, those players must resolve **combat** by rolling the **combat** dice.

REMIND ME! BOARD ICON



Roll dice equal to your Fitness

- Each player in **combat** receives a number of dice equal to the **Fitness** of their **Strategy**.
- The player with the highest combined roll wins; the other players lose and do not go to the next phase. Losing **Strategies** are immediately discarded.
- During the mating phase, the combat winner gets a "combat bonus" and attracts two additional **Females**.

EXAMPLE: If a middle-fitness combat Strategy won combat, it would attract 2 Females (equal to its Fitness of 2) plus 2 Females from the combat bonus for 4 Females total.

REMIND ME! BOARD ICON



Combat winners attract 2 more Females than their Fitness

IMPORTANT

If only one player plays a combat Strategy in a turn, then that player does not combat and so does not receive a combat bonus if they mate.

DID YOU KNOW?

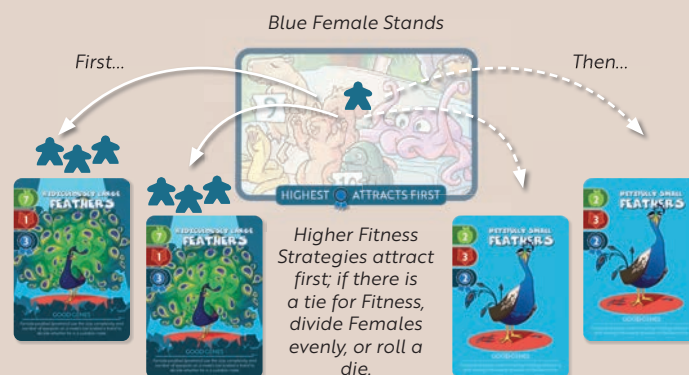
In biology, an organism's fitness isn't about how in shape it is but how many offspring it's able to successfully produce over the course of its life. This means "survival of the fittest" has more to do with being good at finding a mate and producing the next generation than it does with being strong enough to survive.

ATTRACTING FEMALES

Players only attract **Females** from the **Stands** that match their **Strategy** color. For example, **flashy Strategies** attract **blue Females** and **combat Strategies** attract **red Females**.

- The **Strategies** with higher **Fitness** attract **Females** first. This is never an issue for **combat Strategies**, since only one **combat Strategy** will ever make it to mating at a time (except in some cases described by **sneaky Strategies**; see page 4 for details!).
- If there is a tie for highest **Fitness**, then **Females** will equally divide themselves among tying **Strategies**. If **Females** cannot be evenly divided between **Strategies**, then both players roll a die to see who attracts the remaining **Female**.

EXAMPLE: If two Fitness 3 and two Fitness 2 flashy Strategies make it to the attract phase and there are 7 Females in the blue Stands, then the two Fitness 3 Strategies each attract 3 Females (equal to their Fitness of 3) and the two Fitness 2 Strategies roll to see which Strategy the remaining Female is most attracted to. Neither will attract as many Females as their Fitness says they can (i.e., 2).

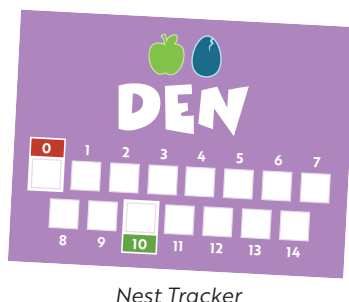


- After mating is complete, refill each pool to the starting number of **Females** (# of players + 1).

MATING PHASE

You've made it! Now all you have to do is mate and you'll get your offspring! Hopefully no one messes with you. After all, you're the winner... aren't you?

Each **Strategy** attracts **Females** equal to its **Fitness**. Players gain one **Offspring** for each **Female** their **Strategy** attracts. Players track **Offspring** with their **Nest**.



TIP: This is a great time to play one of those sneaky Strategy cards you've been holding onto all game...

WINNING THE GAME

The first player to gain 10 Offspring wins the game!!! If there is a tie for Offspring, then the player with the highest remaining Food wins the tie. Once a player (or players) reach 10 Offspring, the game ends and there are no more phases, even if there are more environment cards.

IMPORTANT

Check to see who wins after the Mating phase is over, i.e., before the Discard & Draw phase. In other words, the order of who attracts the Females first does not affect who wins the game.

Example: if two players have 9 Offspring at the start of a turn and both make it to mating, but one has a high Fitness flashy Strategy (4) and the other a mid Fitness flashy Strategy (3), the player with the high Fitness Strategy attracts the Females first but does not win before the other player attracts their Female(s).

If both players attract at least 1 Female during the Mating Phase, then they both reach 10 Offspring at the same time and would tie, meaning they would have to compare leftover Food to see who wins!

DID YOU KNOW?

In the game, there is no best or worst strategy for attracting a female as different strategies may be needed in different situations. Each time you play, try using different strategies to win the game. How many ways can you win?

GAME VARIANTS

Variant 1 - Ignore Predation (or Female Scarcity)

Play the game the regular way but this time ignore any predator icon that pops up on an environment card. This means you can't lose a card to predation and you don't have to spend Food to escape!

Variant 2 - Variable Environment

In nature, the strategies that animals use to find a mate are strongly influenced by the reliability of their environment. To illustrate this, we've included different types of environments in the game! Once you get the hang of playing with the regular Environment deck, try changing it to see how much your strategy is affected by your environment. Swap out the stable Environment cards ("S" icon in the bottom right corner) with the variable Environment cards ("V" icon) and play again! The rules for the game stay the same no matter which Environment deck you use.

Variant 3 - Make your own Environment Deck!

Assemble a custom environment deck from the available environment cards in whatever frequency or order you want and play with it!

Examples:

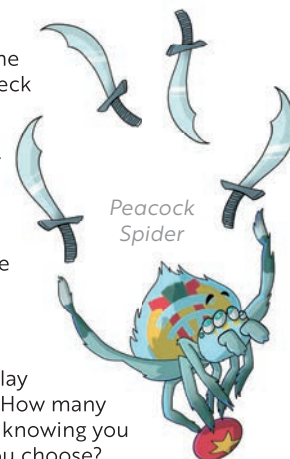
Play with only high (or low) Food environment cards

Play with only high Predator (or Female Scarcity) environment cards

Order the environment cards in a specific sequence (like to mimic seasons!), like low Food to high, vice versa, or with high (or low) Food in the middle!

Variant 4 - Sudden Death

Shuffle an extra environment card from the box upside down into the environment deck – make sure to keep the top 2 or 3 cards apart so you can add them back to the top of the deck after shuffling – then play the game normally. When the upside-down card is revealed, finish the round, then stop the game! This mimics real life, where animals don't know how much time they have to win the mating game!



Variant 5- Long life

Ignore the "10 offspring to win rule" and play until the environment deck is exhausted. How many offspring can you get this way? How does knowing you have more time affect which strategies you choose?

HOW REAL IS THIS GAME?

Here are some of the parts of the game that are true to real nature as well as some of the misconceptions the game might inadvertently teach.

Things in the game that are REAL:

All the strategies in the game are real strategies found in nature.

The effect most have on a player's ability to mate and on competing males (like combat or stealing offspring) are also true to nature.

Strategies in real life can be organized into the categories (like flashy and combat) we highlight in the game. Many animals use only one or the other strategy type, but there are also many cases where a single species will use a mixture of **flashy**, **combat**, and **sneaky** Strategies.

Sometimes these strategies are so intertwined that it can sometimes be difficult to determine where one ends and the other begins.

Animals in nature must balance surviving in their environment with attracting a mate.

Developing traits and strategies to succeed at surviving as well as reproducing are the main reasons animals look and act the way they do. Afterall, the only animals to exist today are those whose ancestors were able to pass on their genes to the next generation.

Animals can't always invest as many resources (like food) as they might like in getting a mate. They rely on their environment (or niche) to determine what resources they have available and then that in turn determines how much they (as a species) can put into mating strategies.

Animal species don't have access to all strategies and have to do the best with what they have, just like players have to pick from the cards they have available each turn. In nature, this is (in part) determined by the genes you have, which is itself determined by who your ancestors were and what kind of environments they developed in.

Different environments impact mate choice strategies in real life too. Some encourage animals to save up to compete for a mate while others force them to mate as much as possible, whenever they can. Environments or niches without predators allow for different kinds of strategies to flourish than in environments with lots of predators, where the animals have to spend more time and resources surviving than looking for a mate.

The game does not have genes but does show how selection in one generation influences available strategies in the next. In nature, animals who mate successfully pass on winning strategies to their offspring, which decides what strategies are available for the next generation. The Discard & Draw phase allows players to tune their strategies based on the environment and their personal goals, similar to how a species gets tuned to its environment over time.



Fruit Fly

DID YOU KNOW?

Scientists still aren't sure why females pick the males they do, but they're getting close! They have several ideas (called hypotheses) to explain what they see. These hypotheses are on the **Strategy** cards in the game. How many different hypotheses can you find? Do you notice any patterns in terms of which **Strategies** have which hypotheses?

Things in the game that are NOT REAL:

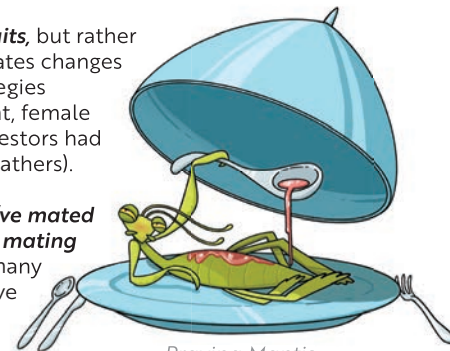
Sexual selection occurs between members of the same species, not between species. We focus on strategies, not the organisms that use the strategies, so the cards represent strategies that a hypothetical species could use, along with an example of a real organism that uses that strategy

In the game, selection is on the males and the females seem mostly passive, but in real life all parties involved are under selection, even if it affects them differently. We wanted to produce a game that could be used within the time constraints of a classroom environment, so we chose to treat the male and female sides of mate choice separately to simplify the mechanics. We built a game that modeled the male side first because it's the most commonly taught in schools, but we are excited to produce a future game that will address the female side!

Females don't automatically mate with males who outcompete other males. Since the strategies we highlight in the game are real, it means females have selected for them over many generations and they are thus a good baseline for understanding what females find attractive. However, females also respond to other factors, like whether they have enough resources (for example, food and water) to produce or care for offspring and how diverse (genetically) her mates are (more diversity may improve the chances of at least one of her offspring surviving).

Animals do not choose their traits, but rather every species evolves (accumulates changes over time) to use different strategies depending on their environment, female preferences, and what their ancestors had available to use (like horns or feathers).

Animals don't know when they've mated enough to "win" the real-world mating game. They just have to try as many times as they can while they have the chance (are still alive), and hope for the best.



Praying Mantis



It's not just about producing offspring: your offspring must also survive to pass on your genes to future generations. This is why some animals (like humans and elephants) spend a lot of time raising just a few children; it increases the likelihood that each offspring survives into adulthood and finds mates of their own. Some long-living animals even benefit from grandparents helping out!

LEARNING WITH THE GAME

The game teaches you the science while you play, but unless you discuss some things at the end you won't know what you learned!

This section serves as a starting point for unpacking all that the game teaches. Discussing these questions with your playgroup will help you link game decisions to real world phenomena.

Each time you play, discuss the following questions. Try out different variants and see how your answers change!

1. Which **Strategy** types did you like playing most, **combat**, **flashy**, or **sneaky** and why?
2. What are the pros and cons of each strategy type?
3. What was the **Fitness** of the **Strategies** that you played most often, high, medium, or low?
4. Is there any situation you could think in which investing more energy in securing a mate would not be advantageous?
5. How are the different **Strategy** types affected by the **Predator**  and **Female Scarcity**  icons on the **Environment** cards?
6. How often did you use the "Out to Lunch" card? Why?
7. How did the amount of food in the environment affect your choices?
8. Can you think of specific examples of environments that are predictable and some that are not?
9. Do humans use any of these **Strategies** when they try to find a partner/date?

Turn the rulebook upside down for our thoughts on these questions!

9. Do humans use any of these **Strategies** when they try to find a partner/date? Humans use a lot of these strategies, but mate choice isn't as straightforward in humans as it might be in other species, particularly because we have a very complex behavior called culture that influences many of our actions. Still, because we also evolved under selection pressures, some aspects of our behavior are probably related to the patterns we see in the game. For example, human females invest more in their offspring than human males (pregnancy), so they would be under more pressure to be choosy than their male counterparts. However, human males also tend to invest a lot in their offspring compared to many animal males, so they are also choosy. This forces both human females and males to compete for attention!



8. Can you think of specific examples of environments that are predictable versus those that are not? Environments with steady climates (like near the tropics) often provide the resources organisms need year-round, while those with extreme changes season to season (like near the poles, or in monsoon regions) may be less predictable. Also note that an environment is not just a physical place: a mouse and an elephant both live in the savannah, but one has a very unpredictable environment and the other has a very predictable one. Which do you think is which and what makes the difference?

7. How did the amount of food in the environment affect your decision making? There are two parts to this question. First, the amount of food you are actually getting and second the amount of food you can expect to get in the future, based on what you've gotten so far. The first part determines how much you can invest in your mating strategy – if you have access to a lot of food (and other useful resources), then you can pay more food than if you don't. The second part determines how reliable the environment is: places or niches with lots of variability (unpredictability) force the species living there to reproduce as much as possible whenever they can, because they don't know how much longer they might survive.

Learning Outcomes:

1. Know what sexual selection is and how it influences animal mate choice strategies
2. Become familiar with a variety of mating strategies, understanding that many organisms use similar traits in nature.
3. Predict the tradeoffs between the success (reproductive and survival) of a strategy in a natural environment (fitness) as it is affected by natural selection.

6. How often did you use the "Out to Lunch" card? Why? When there is enough food each turn to cover the cost of your preferred strategy level, the out-to-lunch card isn't needed. But if you want to spend more on a strategy to get extra offspring, or you're in a variable environment that only provides you resources periodically (like in the Variable Environment cards), you may find that saving up resources with the Out-to-lunch card is helpful.

5. How are the different **Strategy** types affected by **Predator**  and **Female Scarcity**  events in the **Environment**? Predation discourages animals from using high investment flashy strategies because they're so focused on looking good that animals may unintentionally attract a predator's attention or then struggle to escape a predator that find them. The combat strategy cards are not affected by female scarcity because there is usually only one male who makes it to the mating phase.

4. Is there any situation where spending more food on a strategy wouldn't be helpful? If you're more likely to lose all your investment, like for a flashy card if there is a lot of predation in the environment, or for a combat strategy if a lot of other players play combat cards. usually guarantee you offspring, but require some saving up to afford (unless you're lucky!). fitness cards let you play each turn, but aren't likely to win, and the high fitness cards environment should exert some pressure on how much you're paying each turn. The low playstyle, and chance, but the amount of food, predators, and female scarcity in the which fitness level you play is influenced by lots of reasons, including player preference, low why?

3. What was the **Fitness**  of the **Strategies** that you played most often, high, medium, or low? investment in a combat or flashy strategy.

2. What are the pros and cons of each strategy type in the game? **Combat**: Pros: You keep other males from mating and you can get access to more females than usual (and thus have the chance to make more offspring). Cons: It's risky because you won't mate at all if you lose and you might get injured or die and be unable to mate in the future. It also means fewer males get to mate each generation, so there is less gene variation, meaning that the species is less adaptable to changes in their environment. Flashy: Pros: You avoid direct competition and have a higher chance of finding a mate. Cons: You may be more vulnerable to predation and there are more males who could mate after you, which gives rise to sperm competition (see Sneaky Strategies) and means you may not get as many offspring as you hoped. Sneaky: Pros: you can still mate even if you're unable to using regular strategies. Cons: you may get rejected by the female and, in general, these strategies will net you fewer offspring than if you had high investment in a combat or flashy strategy.

1. Which **Strategy** types did you like playing most, **combat**, **flashy**, or **sneaky** and why? These are real categories scientists use to organize the behavior of male animals that are trying to attract a mate. Combat strategies are "intrasexual" because they force members of the same sex (males) to compete with each other directly. Males that use this approach put pressure on each other to look and act in ways that make them intimidating or capable of winning a physical fight. Flashy strategies are "intersexual" (inter = between) because the competition occurs between the sexes: female preference, not male dominance, is what decides how males in those species look and behave. An animal that uses a flashy strategy well usually indicates that animal has access to good resources and can invest in shiny traits or can survive despite bringing attention to itself. Sneaky strategies allow animals to reproduce successfully without being strong or attractive, like with a combat or flashy strategy, and comprise a whole variety of approaches to mating that are in some cases so unique that scientists didn't notice them until years after they began studying the species.

RULES FAQ

Can I play my strategy card face up?

You can, but this would tell other players about your plans and let them pick different cards based on what you were going to do. Not only does this make it harder for you to win, it also isn't very accurate to how animals compete in nature. But if you decide you want to play that way, we can't stop you.

Can I use a **sneaky** Strategy as my main Strategy during the Pay & Play phase?

As cool as this would be, no, you can only use **combat** or **flashy** Strategies as your primary Strategy in the game. **Sneaky** Strategies are only for playing later where they're situationally effective. Besides, **sneaky** Strategies have no **Fitness**: if you used them, how would you get any offspring?

Do I still earn Food if I play an "Out-to-Lunch" card for a turn?

Yes, the point of the "Out to Lunch" card is that you want to spend a turn saving up your resources, so you still gain (or lose) the amount of Food listed on the Environment card, but nothing else affects you (no predation, no sneaky Strategies, etc.). See page 4.



Scorpion Fly

During the Environment phase, can I earn Food before I decide whether I want to pay to escape a Predator?

Yes, you gain Food before you do the other actions on the environment card. If it helps, you can do the game actions in the same order they are listed on the card (Food, Predator, Female Scarcity)

What happens if there's a tie during a game action?

Whenever there is a tie, players in the tie roll a single six-sided dice to determine who wins. If the die roll is tied, roll again...

THE TEAM

GAME DESIGN

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Andrea Roth-Monzon, PhD

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Andrea Roth-Monzon, PhD

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CHARACTER DESIGN

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ILLUSTRATION

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GRAPHIC DESIGN

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PLAYTESTING

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SPECIAL THANKS

Martian Studios, Josh Heward

If someone plays the Level Up **sneaky** Strategy, does the winner get a combat bonus?

Yes, anytime a player wins combat, whether they had a flashy trait or combat trait in play, they get a combat bonus.

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Snow Skink



Damselfly

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