

INTRODUCTION

Hidden Empires is a game for 2 to 6 players where each player assumes the role of an ant colony. You will guide your colony as it attempts to grow and thrive in a hostile environment while competing for resources with neighboring colonies. Your colony will employ unique survival strategies based on those of real world ant species. To win the game, you must give your species the best chance of survival by producing more reproductive ants than your opponents.

BACKGROUND

All ants exist as part of a larger society: their colony. The majority of ants, the workers, are sterile females who spend their lives supporting their colony without producing offspring of their own. All of the workers in a colony are daughters of a single or a few mother queens. When the colony matures, the mother queen produces reproductive male and female ants to pass on the colony's DNA. In this way an ant colony functions like a "super organism". Workers act as the organism's body cells, feeding the colony and protecting it from invasion, and reproductive ants act as the organism's sex cells, leaving the colony to mate and produce daughter colonies.

In most ant species, a colony is founded by a single, newly mated queen. The queen herself raises the first few workers. Each egg the queen lays hatches into a larva, which is the equivalent of a butterfly or moth caterpillar. But unlike caterpillars, ant larvae are helpless and must be cared for and fed by the queen, and later by the colony's workers.

An ant larva is a small eating machine that quickly grows in size. After it has grown, a larva spins a cocoon around itself and enters the pupal stage. During this stage, the pupa metamorphoses into an adult ant. Depending on its sex and how much food it was fed as a larva, an ant may emerge from its cocoon as a sterile female worker or as a reproductive male or female.

The life-cycle of an ant colony is similar to a single plant or animal. A young colony is vulnerable to predation and attacks by nearby, larger colonies. During this time the colony invests its resources in growth and defense by producing workers. These workers are able to secure an expanding territory and bring in more resources, leading to more growth.

When a colony is mature enough, some species produce a few larger workers. These workers often specialize in some task, like soldiers who help defend the colony, or millers who break up seeds to help feed the colony. The largest workers in a colony are called "majors", and the in-between, medium sized workers are called "medias". The smallest workers are called "minors", but we just refer to them as "workers" in the rules.

When a colony reaches the equivalent of adulthood, it produces winged reproductive males and females. These ants fly away to seek mates from other colonies of the same species. The males die shortly after mating but the females live on. Each mated queen will attempt to found a colony of her own and begin the cycle again.

ITALICS

Throughout the rules and cards, you will see notes in *italics*. These notes will help you better understand ants but they do not have a direct bearing on the game.

TABLE OF CONTENTS

Introduction	1	Foraging.....	10
Background	1	Harvest	10
Italics	1	Tend Aphids	10
Table of Contents.....	2	Tend Plants.....	10
Definitions.....	3	+ and – Markers	11
Equipment.....	4	Foraging Trails.....	11
Getting Started.....	6	Combat	12
Choose Colors	6	Defenders Scatter.....	12
Place Nest Markers.....	6	Resolve Losses.....	12
Place Discovery Markers	6	Stay or Return.....	12
Setup Nest Sheets	6	 	
 		Nest Phase.....	13
Game Play	7	Return Ants.....	13
Player Turn	7	Feed Nest Adults.....	13
Nest Phase.....	7	Pupae Emerge	14
Winning the Game.....	7	Feed Larvae	14
 		Eggs Hatch	15
Move Ants.....	8	Lay New Eggs	16
Redistribute.....	8	Discard Food	16
Nest Sheet.....	8	Nuptial Flight.....	16
Check Nest Size.....	8	 	
Check Brood Size.....	8	Bibliography	17
Move One Area	8	 	
Turn Discovery Markers Faceup	9	Credits	17
Perform Tasks.....	9	Advanced Rules	18
Attack	9	 	
Build.....	9	Optional Rules	26
Forage.....	9		
Nurse	9		

DEFINITIONS

Mother Queen:

The foundress of your colony. Your mother queen's sole purpose is to lay eggs.



Eggs: Your mother queen may produce fertilized eggs, which hatch into female larvae, and unfertilized eggs, which hatch into male larvae.

The production of females from fertilized eggs and males from unfertilized eggs is called haplodiploidy. The ant family is a member of the Hymenoptera order of insects, and haplodiploidy is a characteristic of all Hymenoptera. The other Hymenoptera families are wasps and bees.

Larva: An egg hatches into a grub-like larva which has a voracious appetite and grows quickly in size. Once it achieves its full size, a larva spins a cocoon around itself and enters the pupal stage.

Pupa: A pupa sleeps in hibernation while it metamorphs into an adult. Depending on how much food she was fed as a larva, a female pupa may emerge either as a worker, media, major, or virgin queen. A male pupa always emerges as a drone.

Brood: Your colony's total collection of eggs, larvae, and pupae is its brood.

Nest: Your nest houses and protects your mother queen and her brood.

Ant colonies live in many different types of nests: in underground chambers they dig or find, beneath the bark of dead trees, in tree leaves curled into chambers and secured with larval silk, and even inside hollowed acorn shells.

Workers: Workers are non-reproductive females and are the primary source of labor for your colony.



Medias: Medias are medium-sized, non-reproductive females. In the advanced game, your colony may have medias if you play a Trait card that allows them. See Draw a Card on page 20.



Majors: Majors are the largest non-reproductive females. In the advanced game, your colony may have majors if you play a Trait card that allows them. See Draw a Card on page 20.



Virgin Queen: Large female pupae may emerge as reproductive, winged adults called virgin queens. During a nuptial flight, these ants leave their colony to seek mates and attempt to found new colonies of their own.

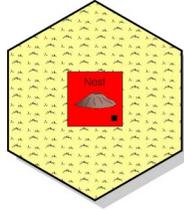
Drones: Male pupae emerge as reproductive, winged adults called drones. During a nuptial flight, drones leave their colony to mate with virgin queens of the same species. Drones are short lived and die a few hours after mating.

Reproductives: A colony's virgin queens and drones are collectively called its reproductives.

Nuptial Flight: During the mating season, reproductives fly away from their home nest to mate with members of the same species. This is called a nuptial flight.

Area: The hexagons on the map are called areas.

Nest Area: An area that contains a nest is a nest area.



Central Areas: The areas in the center of the map surrounded by a dashed line are the central areas. In the advanced game, these areas are referred to by some of the Event cards. See Draw a Card on page 20.

Food Available: Food Available represents an abstract quantity of food produced by your foraging workers and consumed by your nest adults and larvae.

The amount and type of food represented by Food Available depends on the species of ants that forage and consume it. Ants eat many different things: dead insects, insects they hunt and kill, aphid honeydew, plant nectar, fruit, seeds, and even fungus. Some species specialize in 1 or a few types of food while others are more generalized.



EQUIPMENT

Rules

The rules are divided into 3 sections; basic, advanced, and optional. Use the basic rules when you first learn them game. Then try the advanced rules if you want something more challenging. You may use the optional rules to modify the advanced rules for a variety of game play.

Map

The map consists of 61 hexagon shaped areas in 5 different colors.

Ants live and forage in the dirt, under the ground, in rotting logs, or on the leaves of trees. The map is an abstraction of the many different environments where ants are found.

Cards

The cards are used in the advanced game. See Draw a Card on page 20.

Nest Sheet

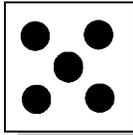
Each player has a Nest Sheet to keep track of his or her brood and nest workers. Use the side labeled Basic Game.

Chambers: Your Nest Sheet has chambers for keeping track of your colony's brood and reproductives. You may place your ants in your Builders of Nurses chambers.

Boxes: Use the Nest Size box to keep track of the size of your nest and the Score box to keep track of your game score. Notice that your nest size starts at 6. Your Nest Sheet also has a Food Available box for keeping track of the amount of food your workers forage and a Returning Ants box for lost ants who are returning to your nest.

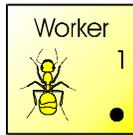
Number Counters

Place number counters on your Nest Sheet to keep track of your score, nest size, and the number and sex of the eggs, larvae, pupae, and reproductives in your nest. For example, a '2' counter in the Virgin Queens chamber of your Nest Sheet represents 2 virgin queens.



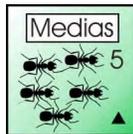
Ant Counters

Color: There are 6 different colors of ants. Before the game begins, each player should choose which color he or she will use.



Symbol: The small symbol in the bottom, right hand corner of each ant counter is an aid for players who have difficulty distinguishing between the colors.

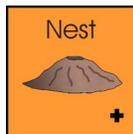
Number: Ant counters come in denominations of 1, 3, 5, and 10. You may freely exchange counters of the same type. For example, if you have 5 '1' worker counters in an area, you may replace them with a single '5' workers counter.



Patrol: The Patrol side is used in the advanced game.

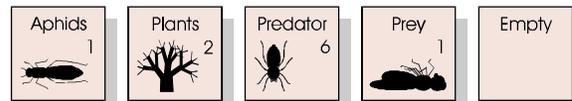
Nest markers

Take the Nest marker that is the same color as your ant counters. You will use it to designate the location of your nest on the map.



Discovery Markers

The markers with a question mark (?) on their backs are discovery markers. At the beginning of the game, place discovery markers facedown on the map. When your ants move into a new area, you may turn the discovery marker faceup to find out what it is. Discovery markers are Aphids, Plants, Predators, Prey, or empty.

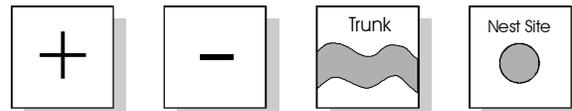


Discovery Markers

Other Markers

+ and -: These markers are used to modify the printed value on Aphids, Plants, and Prey discovery marker. See Foraging on page 10.

Trunk and Nest Site: These counters are used in the advanced game.



Other Markers

Dice

You will need a few six-sided dice.

Optional Equipment

Number Counters: Replace the number counters with 8mm dice. You will need 10 per player.

GETTING STARTED

To start a game of Hidden Empires, players must do the following:

1. Choose Colors
2. Place Nest Markers
3. Place Discovery Markers
4. Setup Nest Sheets
5. Setup Cards (advanced game)

Choose Colors

There are 6 different colors of Nest markers and ant counters. Once you have chosen a color, take the Nest marker and ants of that color and set them on the table in front of you.

Place Nest Markers

During this step, players must place their Nest markers on the map.

Allowed Areas: Nest markers must be placed into an area labeled with the number that corresponds with the number of players. For example, if there are 5 players use the areas labeled '5'.

Order: Put the Nest markers facedown, mix them up, and draw 1. The player whose marker is drawn may place it into any of the allowed areas. Then draw a second Nest marker. The second player must place her marker into a different allowed area and so on. The last player has no choice and must place his marker in the last allowed area.

Place Discovery Markers

Place Facedown: Mix all of the discovery markers facedown on the table. Keeping them facedown, place a discovery marker into every empty area on the map. You will have extras.

Turn Faceup: One at a time, turn faceup all discovery markers that are adjacent to your nest.

Adjacent Predators Not Allowed: If you turn up a Predators that is next to another Predators replace it by drawing from the unused markers until you get one that is not Predators.

Setup Nest Sheets

Nest Size: Give each player a Nest Sheet. All nests begin the game with a size of 6, which is already marked in your Nest Size box.

Initial Workers: Each player starts with 6 workers. Place 6 '1' Worker counters in your Nest Area.

Initial Brood: Each player starts with 1 female egg, 1 female larva, and 1 small female pupa. Place a '1' counter in your female eggs chamber, a '1' counter your female larvae chamber, and a '1' counter the circle labeled "Small" in your female pupae chamber.



GAME PLAY

Hidden Empires is played in a series of game turns. Each game turn is divided into several player turns followed by the Nest Phase.

Turn Order: The player who placed his or her Nest marker *last* takes the first player turn. Play then proceeds clockwise around the table.

Player Turn

Each player turn is divided into the following steps:

1. Draw a Card (advanced game)
2. Move Workers
3. Scout Areas (advanced game)
4. Perform Tasks

Nest Phase

After everyone has completed their player turns, all players simultaneously conduct their nest business during the Nest Phase. The Nest Phase is divided into the following steps:

1. Return Ants
2. Feed Nest Adults
3. Pupae Emerge
4. Feed Larvae
5. Eggs Hatch
6. Lay New Eggs (optional)
7. Discard Food
8. Nuptial Flight (optional)

Winning the Game

You score points for each of your nuptial flights.

Nuptial Flight: You score points when your reproductives leave your nest during a nuptial flight. You score 4 points for each pair of virgin queens and drones that leave. In addition, you score 2 points for each unpaired virgin queen and 1 point for each unpaired drone that leaves.

Winning: At the end of every game turn check each player's score. If 1 or more players has a score of 16 or higher the game ends and the player with the highest score wins the game. If 2 or more players have the same score of 16 or higher the game is a tie.

Game Length: If everyone agrees before starting you may play to a higher or lower score for a longer or shorter game.



MOVE ANTS

You may first redistribute your ants between locations you already occupy. Then you may move your ants 1 additional area.

Redistribute

You may move all, some, or none of your ants any distance as long as each ant ends in 1) an area you occupied at the beginning or your turn, 2) in your nest area, or 3) on your Nest Sheet. Ignore intervening predators and opposing ants. You may move as many ants as you like into a single area.

Nest Sheet

You may move ants from any area on the map into the Builders or Nurses chambers on your Nest Sheet. You may also freely move ants between these chambers.

Returning Ants: You may *not* move ants into or out of your Returning Ants box at this time.

Check Nest Size

The total number of nurses, reproductives, and brood members must be less than or equal to your nest size.

<p>Nest Size \geq nurses + reproductives + brood members</p>

Do not count builders or your mother queen into the total. If you exceed your Nest Size move workers or eliminate brood members until the total is less than or equal to your Nest Size. You may *not* convert brood members to food at this time.

Check Brood Size

You must make sure you have at least 1 nurse assigned for every 10 brood members.

<p>1 Nurse for every 10 Brood</p>

If you do not have enough nurses you must move in more nurses or eliminate brood members until there is at least 1 nurse for every 10 brood members. You may *not* convert brood members to food at this time.

If you move in more nurses you must check your nest size again.

Move One Area

After you have redistributed your ants, you may move all, some, or none of your ants 1 additional area. Ants in your nest may move into your nest area or an adjacent area. However, you may not move ants into an area that contains faceup Predators.



Turn Discovery Markers Faceup

You may turn over any facedown discovery marker in an area with your ants.

Blank: When you turn a blank marker faceup, remove it from the map.

Predators: If you turn up a Predators that is next to another Predators replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move the ants that found the marker back to your Returning Ants box. Ignore the number on the Predators marker—it is used in the advanced game.

Your scouts may discover areas inhabited by hunting birds, spiders, assassin bugs, horned frogs, armadillos, or other animals that prey on ants.



PERFORM TASKS

Your ants are highly versatile and may perform any of these tasks:

- Attack
- Build
- Forage
- Nurse

Attack

If your ants share an area with opposing ants you may attack them. You may attack in none, some, or all shared areas. All of your ants in the area must join the fight and none may forage this turn. See the Combat section on page 12 to resolve the conflict.

Build

Add 2 to your nest size for each ant in your Builders chamber. Use the number counters to keep track of your nest size. Builders do not count against your nest size.

Forage

Ants in an area with an Aphids, Plants, or Prey discovery marker may forage for food. See Foraging on page 10.

Nurse

Your nurses perform no action during your turn, but they do keep your brood alive.

FORAGING

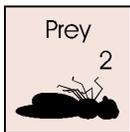
Your ants may produce food for your colony by foraging Aphids, Plants, and Prey discovery markers. Each forager adds 1 to your Food Available box on your Nest Sheet.

Harvest or Tend: Your foragers may either harvest or tend each marker. However, Prey may be only harvested.

Shared Area: You may only harvest in an area you share with opposing ants; tending is prohibited.

Harvest

Up to 6 ants may harvest an Aphids, Plants, or Prey marker. *After* producing food, roll a number of dice equal to the number of foragers. For each result of '1', add a – marker to the area. If the number of – markers equals the value on the discovery marker, remove the discovery and – markers from the area.



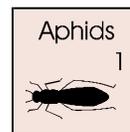
Foragers: up to 6
 Roll Dice: number of foragers
 Add one – for *each* result of '1'

Example: You assigned 4 workers to forage a Prey marker and produce 4 food. Then you roll 4 dice and the results are '1', '1', '4', and '6'. Since you rolled 2 '1's, you add 2 – markers to the area.

Depending on the ant species, prey items may be seeds carried back to the nest, live insects hunted and killed, or dead animals or insects scavenged for food.

Tend Aphids

The maximum number of ants that may tend an Aphids marker is equal to the modified marker value.



Increase Aphids: Ants benefit the aphids they tend. *After* producing food, roll a number of dice equal to the number of foragers. If one or more results is a '1' add a + marker to the area.

Foragers: up to modified value
 Roll Dice: number of foragers
 Add one + if *any* result is '1'

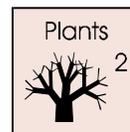
Example: You have 2 workers foraging aphids with a value of 2 and produce 2 food. Then you roll 2 dice and the results are '1', and '1'. Since you rolled at least 1 '1', you add 1 + marker to the area.

Aphids consume plant sap and produce a sugary excrement called honeydew. Many species of ants augment their diet with honeydew and some species consume it almost exclusively.

Aphids belong to the Homoptera order of insects. Other Homoptera that provide honeydew to ants include mealy bugs and scale insects.

Tend Plants

The maximum number of workers that may tend an Plants marker is equal to the modified marker value. Plants are not affected by tending.

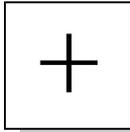


Foragers: up to modified value

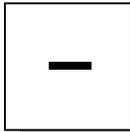
Example: Two workers forage a plant with a value of 2 and produce 2 food.

+ and - Markers

These markers modify the value of a discovery marker. One + marker means treat the value of the discovery marker as 1 higher than its printed value and 1 - marker means treat it as 1 lower.



Removal: If the number of - markers equals or exceeds the printed value of the discovery marker, remove all - markers and the discovery marker from the area. This area can no longer be foraged.



+ and - Marker Pairs: + and - markers cancel each other. If there is a pair of + and - markers in an area, remove the pair.

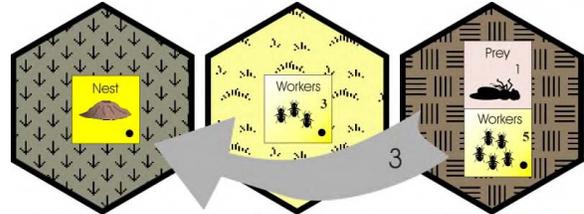
Foraging Trails

Path: When foraging, you must trace a path of contiguous areas from your foragers back to your nest. Each area in the path must contain your ants. However, no path is needed if you are foraging next to your Nest area.

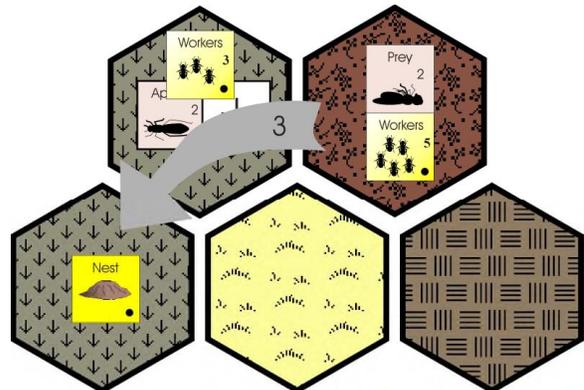
Food Limit: The amount of food you can bring back to your nest is limited to the fewest ants in an area along this trail. See the examples to the right.

Multi Tasking: A single area and its foragers may be included in multiple trails.

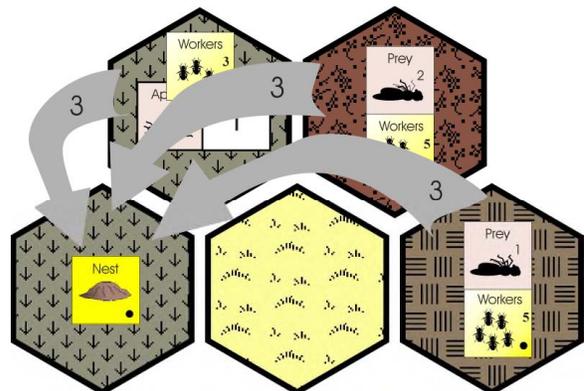
Example 1: You have 5 ants foraging the Prey marker shown below. You have only 3 ants along a foraging trail to your nest, so you produce 3 food.



Example 2: You have 5 ants foraging the Prey marker shown below. They can trace a path through the aphid tenders and produce 3 food. The aphid tenders are adjacent to your Nest area and do not require a trail. The total food produced in this example is 6.



Example 3: Your ants may forage and be part of multiple trails. The total food produced in this example is 9.



COMBAT

If your ants share an area with opposing ants you may attack them. You may attack in none, some, or all shared areas. All of your ants in the combat area must join the fight.

Attacker and Defender: If it is your turn you are the attacker and your opponent is the defender.

Additional Players: If the area contains ants belonging to 2 or more other players you may attack only 1 player's ants.

Nest: You cannot attack another player's nest. However, you may attack another player's ants in his or her Nest Area.

Steps: Follow these steps to resolve combat:

1. Defenders Scatter
2. Resolve Loses
4. Stay or Return

Defenders Scatter

The defender may roll any number of dice up to the number of defending ants. For each result of '1', '2', or '3', the defender may move 1 of his or her ants to their Returning Ants box.

Roll dice = Up to number of defenders
 1, 2, 3 - Move 1 defender to
 Returning Ants
 4, 5, 6 - No effect

Resolve Loses

Total the number of ants on each side. If both sides have an equal number of ants eliminate all ants on both sides. Otherwise, eliminate all ants on the side with the fewest number. Then remove an equal number of ants from the side that had the highest number.

Example: Six yellow ants attack 4 red ants. All 4 red ants are eliminated as well as 4 yellow ants. Two yellow ants remain in the area.

Stay or Return

Any attackers that remain in the area may either stay or move to their Returning Ants box. However, if the area contains an opposing nest you *must* move all remaining attackers to your Returning Ants box.



NEST PHASE

All players simultaneously conduct their nest business during the Nest Phase. The Nest Phase is divided into the following steps:

1. Return Ants
2. Feed Nest Adults
3. Pupae Emerge
4. Feed Larvae
5. Eggs Hatch
6. Lay New Eggs (optional)
7. Discard Food
8. Nuptial Flight (optional)

Only the Lay New Eggs and Nuptial Flight steps are optional; you *must* perform all other steps.

When first learning to play, it may be easier for all players to complete each step one at a time before moving on to the next step. In other words, all players complete the Return Ants step, then all players complete the Feed Nest Adults step, and so on. After everyone knows the game well enough each player may proceed at his or her own pace.

Return Ants

Move all of the ants from the Returning Ants box to your Nest Area or any chamber on your Nest Sheet. Remember not to exceed your nest size.

Example: During your player turn one of your ants found a Predators marker and you moved her to your Returning Ants box. Now you must move her to your Nest Area.

Feed Nest Adults

You *must* feed the adult ants inside your nest.

Exceptions: Do *not* feed your mother queen. You will feed her during the Lay New Eggs step.

Remove Food: Remove from your Food Available box 1 food for each nurse, builder, virgin queen, and drone on your Nest Sheet.

Feed Nest Adults:

nurses
builders
virgin queens
drones

Food Shortage: If you are short on food you must eliminate adult ants, and/or consume your larvae or eggs. For each point of food you are short eliminate 1 nurse, builder, virgin queen, drone, larva, or egg. You decide how many and what type of brood or adults to eliminate.

Example: Your nest contains a builder, a nurse, and 2 reproductives, along with your brood and mother queen. You must feed your builder, nurse, and reproductives, reducing the amount of food in your Food Available box by 4.



Pupae Emerge

All pupae *must* emerge from their cocoons to become adult ants. The caste a pupa becomes depends on its sex and size:

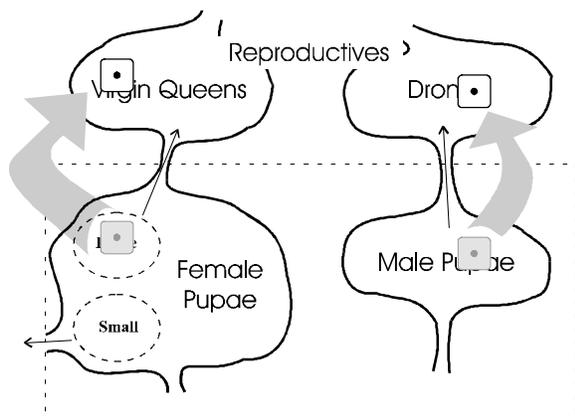
Pupa Sex	Pupa Size	Adult Caste
Male	n/a	Drone
Female	Small	Worker
Female	Large	Virgin Queen

Workers: Remove all small female pupae and place an equal number of worker counters in your Nest Area.

Reproductives: Move all large female pupae to the Virgin Queens chamber. Move all counters from the Male Pupae chamber to the Drones chamber.

Completion: When you finish this step there will be no counters in either of your Pupae chambers.

Example: You have 1 small, female pupa, 1 large, female pupa, and 1 male pupa. The small, female pupa becomes a worker so you remove the number counter and place a new worker counter in your Nest Area. The large, female pupa becomes a virgin queen, so you move the number counter to the Virgin Queens chamber. Finally, your male pupa must become a drone, so you move the number counter from you Male Pupae chamber to your Drones chamber.



Feed Larvae

All larvae *must* eat and become pupae. You must feed each male larva 1 food. You must feed each female larva either 1 or 3 food.

Size: The size of pupa a female larva becomes depends on the amount of food you feed her. For example, if you feed a female larva 3 food, she becomes a large pupa.

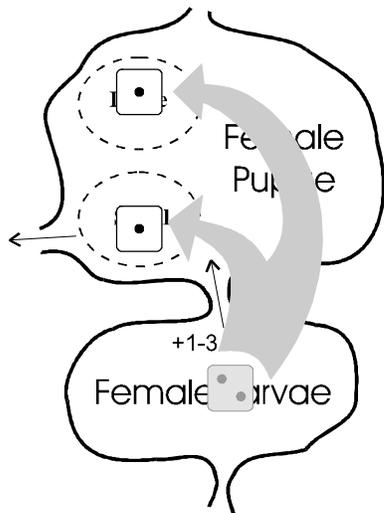
Larva Sex	Food Eaten	Pupa Size
Male	1	n/a
Female	1	Small
Female	3	Large

Food Shortage: If you are short on food you must eliminate larvae and/or consume your eggs. For each point of food you are short eliminate 1 larva or 1 egg. You decide how many and what type to eliminate.

Move Counters: After feeding your larvae, move all counters from the Female Larvae chamber to the Female Pupae chamber and move all counters from the Male Larvae chamber to the Male Pupae chamber. Place counters representing female larvae that were fed 1 food into the circle labeled “Small” and 3 food into “Large”.

Completion: When you finish this step there will be no markers in either of your Larvae chambers.

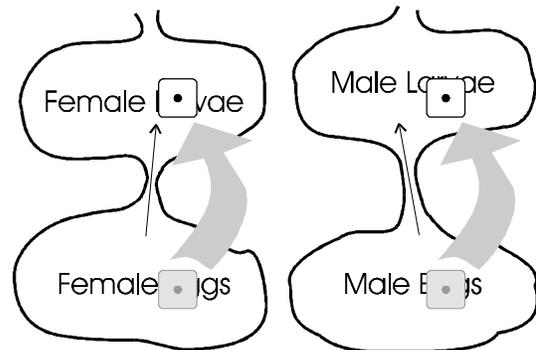
Example: You have 2 female and no male larvae. You choose to feed 1 larva 1 food and the other 3 food so you reduce the amount of food available by 4. Then you remove the '2' counter from your Female Larvae chamber and replace it with a '1' counter in the "Small" circle and a '1' counter in the "Large" circle of your Female Pupae chamber.



Eggs Hatch

All eggs *must* hatch into larvae. Move all number counters from your Female Eggs to your Female Larvae chamber and move all counters from your Male Eggs to your Male Larvae chamber. When you finish this step there will be no counters in either of your egg chambers.

Example: You have 1 female egg and 1 male egg. You move the counter from your Female Eggs chamber to your Female Larvae chamber and the counter from your Male Eggs chamber to your Male Larvae chamber.



Lay New Eggs

Your mother queen may optionally lay up to 6 new eggs. Place number counters in the Female and/or Male eggs chambers, dividing them any way you like. For each egg she lays your queen consumes 1 food.

Nest Size: You may not lay more eggs than your nest will hold. See Check Nest Size on page 8.

Food Shortage: If you lay more eggs than you have food available you must eliminate eggs and/or consume your larvae. For each point of food you are short eliminate 1 larva or egg. You decide how many and what type to remove.

Example: You have 2 food left so you decide to lay 2 female eggs. You remove the number counter from your Food Available box and place it in your Female Eggs chamber.

No Queen: If you do not have a mother queen your nurses may lay *male* eggs. One nurse may lay 1 male egg per turn. Your nurses were fed during the Feed Nest Adults step and do not require additional food to lay eggs.

Discard Food

Discard *all* food remaining in your Food Available box.

Nuptial Flight

You have the option of conducting a nuptial flight. Remove *all* reproductives from your Nest Sheet. You score 4 points for each pair of virgin queens and drones that leave. In addition, you score 2 points for each unpaired virgin queen and 1 point for each unpaired drone that leaves.

Example: You choose to have a nuptial flight and remove all counters from your Virgin Queens and Drones chambers. You had 1 pair of reproductives so you score 4 points.



BIBLIOGRAPHY

Adventures Among Ants, by Mark W. Moffett (University of California Press, Berkley and Los Angeles, 2010).

The Ants, by Bert Hölldobler and Edward O. Wilson (Belknap Press of Harvard University Press, Cambridge, 1990).

Ants at Work, by Deborah M Gordon (The Free Press, New York, 1999).

Ant-Plant Interactions, edited by Camilla R. Huxley and David F. Cutler (Oxford University Press, New York, 1991).

The Behavioural Ecology of Ants, by John H. Sudd and Nigel R. Franks (Chapman and Hall, Glasgow, 1987).

Ecology of Foraging by Ants, by C. R. Carroll and D. H. Janzen, Annual Review of Ecology and Systematics, Vol. 4 (1973) 231-257.

Interspecific Hybridization in Ants: At the Intersection of Ecology, Evolution, and Behavior, by Peter Nonacs, Ecology, Vol. 87 (2006) 2143-2147.

Journey to the Ants, by Bert Hölldobler and Edward O. Wilson (Belknap Press of Harvard University Press, Cambridge, 1994).

Social Evolution in Ants, by Andrew F. G. Bourke and Nigel R. Franks (Princeton University Press, Princeton, 1995).

CREDITS

Designer: Greg Turner

Playtesters: David Allen, Jack Allen, Roger Allen, Lisa Berry, Jacob Davenport, Douglas Elfrink, Kyle Gabhart, Kevin A. George, Anthony Gill, Barry Goldstein, Chris Hardway, Dean Henderson, John Highland, C.W. Karstens, Spencer Kizer, Ed Martin, Claude McDaniel, Brent Modrak, Marc Morain, John Parham, David Reid, Matthew Schemanour, C.W. Speer, Winford Sterling, David Stern, Shawn Storie, Jon Sugiyama, Thad Vasicek, Chris Vogel, Leila Weaver

Protospiel South: Special thanks to the organizers and attendees of Protospiel South 2011 for play-testing and, more importantly, encouragement with the second edition. Thanks!

Photos: The ant and spider photos on pages 4-9 are copyright by Tomasz Zachariasz. The ant photos on pages 12, 13, and 18 are copyright by Henrik Larsson. The ant photo on page 16 is copyright by Antagain. These photos are used under license from iStockPhoto.com.

Illustrations: The media and major Trait illustrations are used with permission from www.antARK.net. The color and resource Trait illustrations were created by keksschaf for the public domain and copied from clker.com and openclipart.org. The chemical Trait and hand icons are from the CorelDraw 7 Clipart CD and are copyright 1988-1996 by Corel.

Font: The Tribeca font used in the headings and page numbers was created for the public domain by Dieter Steffmann.

Revision: 2012-NOV-10

ADVANCED GAME

The advanced game is played much like the basic game but with the following additional rules:

- DNA
- Draw a Card Step
- Scout
- Patrol and Reserve Tasks
- Invade the Nest
- Media and Major Castes

Basic Rules: Continue to use the basic rules except where superseded by a new rule from this section.

Bold: Sometimes it is more clear to repeat all or part of a basic rule here. In these cases changes are shown in bold.



TABLE OF CONTENTS

Advanced Game..... 18
 Table of Contents 18
 Equipment..... 19

Getting Started 19
 Setup Nest Sheets..... 19
 Setup Cards..... 19

Game Play..... 19
 Player Turn 19
 Winning the Game 19

Draw a Card..... 20
 Card Types 20
 Event..... 20
 Hand 20
 Trait 20
 Trading Cards 20
 Trait Auction 20
 Bidding 20
 Type Restriction 20

Move Ants 21
 Move One Area..... 21

Scout Areas..... 21
 Patrollers Search 21
 Patrollers React..... 21
 Turn Discovery Marker Faceup 21
 Reinforce 21

Perform Tasks 22
 Patrol 22
 Reserve..... 22

Foraging..... 22
 Patrollers 22
 + and - Markers..... 22
 DNA..... 22

Combat 22
 Total Combat Points..... 22
 Resolve Loses 23
 Invade the Nest 23
 Carry off Brood. 23
 Kill the Queen 23
 Patrol or Return..... 23

Nest Phase..... 24
 Feed Nest Adults..... 24
 Pupae Emerge 24
 Feed Larvae 25

EQUIPMENT

Nest Sheet: Use the side labeled **Advanced Game**.

Chambers: You may place your ants in your Nurses, Builders, or **Reserves** chambers. **You may use the Storage chamber only if you have a Trait card that allows you to use it.**

DNA: Use the DNA box to keep track of how much DNA you have.

Cards

The game includes a single deck of 64 cards. There are 3 types of cards; Event (⚡), Hand (👉), and Trait. Trait cards all have the word “Trait” in their titles. See Draw a Card on page 20.

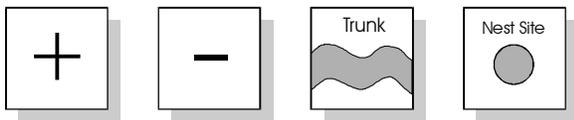
Ant Counters

Patrol: Flip an ant counter to its “Patrol” side to indicate the ant is patrolling. See Perform Tasks on page 22.



Other Markers

Trunk and Nest Site: You may use these markers only if you play the a Trait card that allows you to. See Draw a Card on page 22.



Other Markers

Optional Equipment

DNA: Use glass beads to represent DNA.

GETTING STARTED

To start a game of Hidden Empires, players must do the following:

1. Choose Colors
2. Place Nest Markers
3. Place Discovery Markers
4. Setup Nest Sheets
5. Setup Cards

Setup Nest Sheets

DNA: Each player starts with 6 DNA. Place a ‘6’ counter in your DNA Box.

Setup Cards

Shuffle the cards and place them facedown to form the deck.

GAME PLAY

Player Turn

Each player turn is divided into the following steps:

1. Draw a Card
2. Move Workers
3. Scout Areas
4. Perform Tasks

Winning the Game

Ties: If 2 or more players have the same score of 16 or higher the player with the most DNA wins.

DRAW A CARD

To begin your turn, draw 1 card from the deck. If there are no more cards shuffle the discards and draw the top card.

Card Types

There are 3 types of cards, Event (🗨️), Hand (👋), and Trait. Trait cards all have the word “Trait” in their titles.

Event

When you draw an Event card, you *must* play it immediately. Read the card aloud and take the action stated on the card. Event cards affect all players or have an affect on the map.



Hand

When you draw a Hand card, keep it hidden from your opponents. You may play it now or later to bestow a benefit on your colony or cause some unhappy fate to befall an opponent’s. If a Hand card does not say when it may be played you may play it any time during *your* player turn. You may play any Hand card on any player, including yourself.



Trait

Trait cards define the attributes that make your ant species unique. When you draw a Trait card, you will auction it off during a Trait Auction.

Trading Cards

You may not trade cards with or give cards to another player.

Ant colonies seldom cooperate.

Trait Auction

Players use their DNA to bid for the Trait card drawn.

Bidding

Opening: If you drew the trait card place a bid of 1 or more DNA or pass.

Bids: Proceeding clockwise, each player must either raise the bid or pass. Once you pass you are out of the auction.

Winning: When all other players have passed, the remaining player must pay the DNA cost and place the Trait card faceup in front of him or her.

Multiple Traits: When you win your 2nd trait card you must pay *double* your bid, when you win your 3rd pay *triple*, and so on. If you do not have enough DNA the card goes to the next highest bidder.

Type Restriction

There are 6 types of traits and you may never have more than 1 of the same type. For example, if you have a Nest trait you may not bid on a second Nest trait.



Chemical



Color



Major



Media



Nest



Resource

Trait Types

MOVE ANTS

Move One Area

Scout: If an area contains a facedown discovery marker or opposing patrollers you may move in only a single ant to scout.

SCOUT AREAS

Each time you scout an area, the following may occur:

1. Patrollers Search
2. Patrollers React
3. Turn Discovery Marker Faceup
4. Reinforce

Patrollers Search

If your scout is in an area with opposing patrollers she may be found and possibly killed. The patrolling player must roll a number of dice equal to the number of patrollers. If *any* result is '1' your scout is eliminated. Otherwise, if any result is '2' or '3' your scout must return to your Returning Ants box. If *all* die results are '4' or higher your scout remains in the area unharmed and the patrolling player may react.

Roll dice = Number of patrollers	
1	- Scout killed
2, 3	- Scout returns
4, 5, 6	- Scout remains, patrollers react

Patrollers React

If your scout remains in the area, the patrolling player may react by either reinforcing the area or retreating.

Reinforce: The patrolling player may reinforce the scouted area by moving all, some, or none of the ants from her Reserves chamber into the area

Retreat: The patrolling player may retreat from the area by moving all, some, or none of her ants from the area to the Returning Ants box on her Nest Sheet.

Turn Discovery Marker Faceup

You may turn over any facedown discovery marker in the scouted area.

Blank: When you turn a blank marker faceup, remove it from the map and place it facedown with the unused markers.

Predators: If you turn up a Predators next to another Predators replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and roll a number of dice equal to the number on the marker. If *any* result is a '1' your scout is eliminated. Otherwise, move your scout to the Returning Ants box on your Nest Sheet.

Reinforce

If your scout is still alive and in the area you may reinforce the area by moving in all, some, or none of the ants from your Reserves chamber.

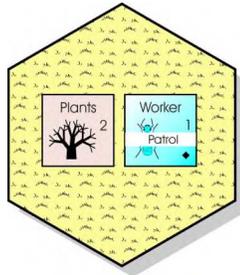
PERFORM TASKS

Your ants are highly versatile and may perform any of these tasks:

- Attack
- Build
- Forage
- Nurse
- Patrol
- Reserve

Patrol

Patrollers perform no action during your turn. However, if an opposing scout moves into a patrolled area, you may be able to detect and kill her. See Scout Areas section on page 21.



Flip Counter: Flip the ant’s counter to its “Patrol” side.

Shared Area: You may *not* patrol an area that contains opposing ants. You must either attack or forage.

Reserve

Ants in your Reserves chamber perform no action during your turn. However, they will defend your nest if it is attacked. Also, reserves are dormant and do not consume food during the Nest Phase.

Reinforce: Reserves may be called out by patrollers and scouts. See Scout Areas on page 21.

FORAGING

Patrollers: You may not forage an area that contains *opposing* patrollers. You may assign some of your ants to forage and others to patrol the same area.

DNA: For each different *color* of area your ants forage, you earn 1 DNA. For example, you forage 3 yellow areas and 1 green area so you earn 2 DNA.

Foraging Trails: Patrollers may not participate in a foraging trail.

COMBAT

Follow these steps to resolve combat:

1. Defenders Scatter
2. Total Combat Points
3. Resolve Loses
4. **Invade the Nest**
5. **Patrol or Return**

Total Combat Points

Combat is resolved by comparing the number of combat points on each side. In general, each worker contributes 1 combat point. This may be modified by Trait cards, and Trait cards may allow the attacker and/or defender to produce medias and majors that contribute more combat points.

Example: The Soldier Trait card allows you to produce majors with a combat value of 5. If you attack with 4 workers and 1 major you will have 9 combat points.

Resolve Loses

Total the number of combat points on each side. If both sides have an equal number of points eliminate all ants on both sides. Otherwise, eliminate all ants on the side with the fewest points. Then the player with the most points must remove ants until the points removed are equal to, or greater than, the combat points removed by the eliminated side.

Example: You assign 2 workers with the Deadly Sting trait to attack 3 workers with no special combat characteristics. You have 4 combat points (2 for each “deadly” worker) and the defender has 3 combat points (1 for each “average” worker). The defender has fewer combat points and is eliminated. Now you must eliminate 3 or more combat points worth of your ants, so you remove both of your attacking workers. All ants on both sides are eliminated.

Invade the Nest

If the area you are attacking contains the defender’s Nest marker, and you still have attackers in that area, you may invade the nest. Combat is resolved as before, but with the following changes.

Nest Size: The attacker ignores the size of the defender’s nest.

Defending Ants: Defending ants can come from the nest’s Reserve, Nurses, or Builders chambers. Brood members, reproductives, and mother queens do not defend. Ants in the defender’s Returning Ants box do not defend.

Defenders Scatter: Each scattering defender may carry 1 brood member to safety. Indicate which brood are protected by placing scattered defenders in brood chambers instead of your Returning Ants box. However, treat these ants as if they were in your Returning Ants box.

Resolve Loses: Total combat points and resolve losses as described previously. If attackers remain after resolving losses you may use them to:

1. Carry Off Brood
2. Kill the Queen

Carry Off Brood

Food Units: For each attacker you move to your Returning Ants box, remove 1 brood member and add 1 food unit to your Food Available box. However, brood taken to safety by scattering defenders may not be carried off for food.

Returning Ants: You may move some, all, or none of your attackers to your Returning Ants box. You may also return attackers even if nothing is left to carry off.

Kill the Queen

After returning as many attackers as you wish, you may use any remaining attackers to attempt to find and kill 1 of the defender’s mother queens. Roll a number of dice equal to the number of attackers. If any result is a ‘1’ 1 mother queen is killed. You may not attempt to kill more than 1 mother queen per nest attack. Ignore combat points when hunting for the queen. You cannot carry the queen back for food.

Roll dice = Up to number of attackers
Kill 1 queen if *any* result is ‘1’

Patrol or Return

Any attackers that remain in the area become patrollers. However, if the area contains an opposing nest you *must* move all remaining attackers to your Returning Ants box.

NEST PHASE

Feed Nest Adults

Reserves: Do *not* feed ants in your Reserves chamber. Reserves are dormant and do not require food.

Pupae Emerge

All pupae *must* emerge from their cocoons and become adult ants. The caste a pupa becomes depends on its sex and size:

Pupa Sex	Pupa Size	Adult Caste
Male	n/a	Drone
Female	Small	Worker
Female	Medium	Media
Female	Large	Major or Virgin Queen

Workers: Remove all small female pupae and place an equal number of worker counters in your **Reserves chamber**.

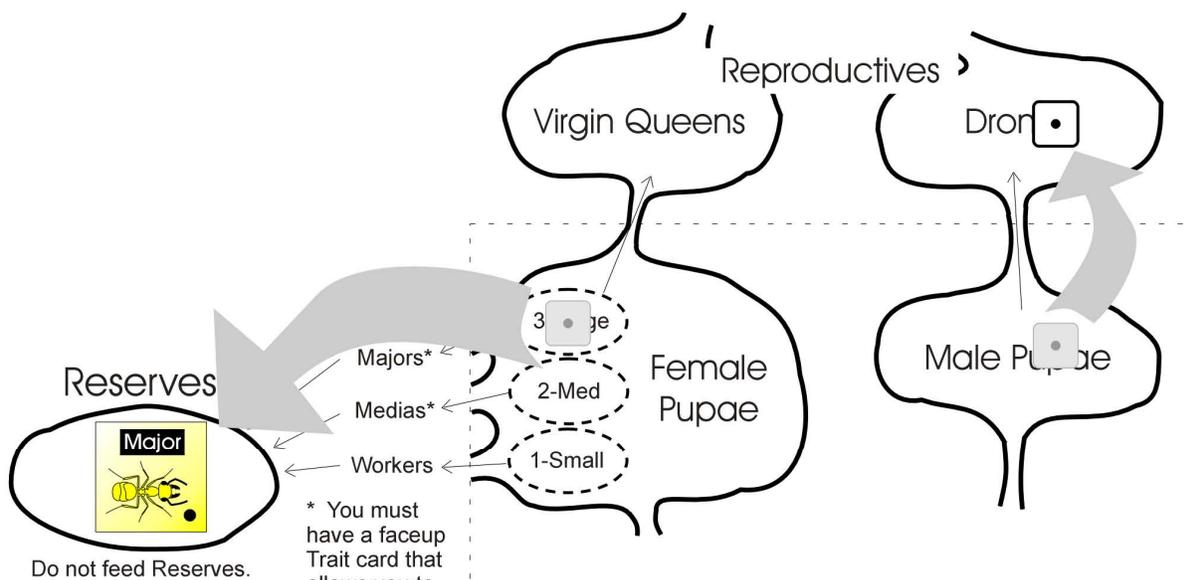
Medias: Remove all medium female pupae and place an equal number of media counters in your **Reserves chamber**.

Majors: A large female pupa may become a virgin queen or, if you have a Trait card that allows it, a major. For each pupa that becomes a major, reduce the number of large female pupae by 1 and place a major counter in your **Reserves chamber**.

Reproductives: Move any remaining number counters from the Female Pupae chamber to the Virgin Queens chamber. Move all counters from the Male Pupae chamber to the Drones chamber.

Completion: When you finish this step there will be no counters in either of your Pupae chambers.

Example: You have 1 male pupa and 1 large, female pupa. Your male pupa must become a drone, so you move the number counter from you Male Pupae chamber to your Drones chamber. Since you have the Soldier trait your large, female pupa may become either a virgin queen or a major. You choose to make her a major and remove the number counter from your Female Pupae chamber and place a major counter into your Reserves chamber.



Feed Larvae

You must feed each male larva 1 food unit. You must feed each female larva 1, 2, or 3 food units.

Size: The size of pupa a female larva becomes depends on the amount of food you feed her. **For example, if you feed a female larva 2 food units, she becomes a medium pupa.**

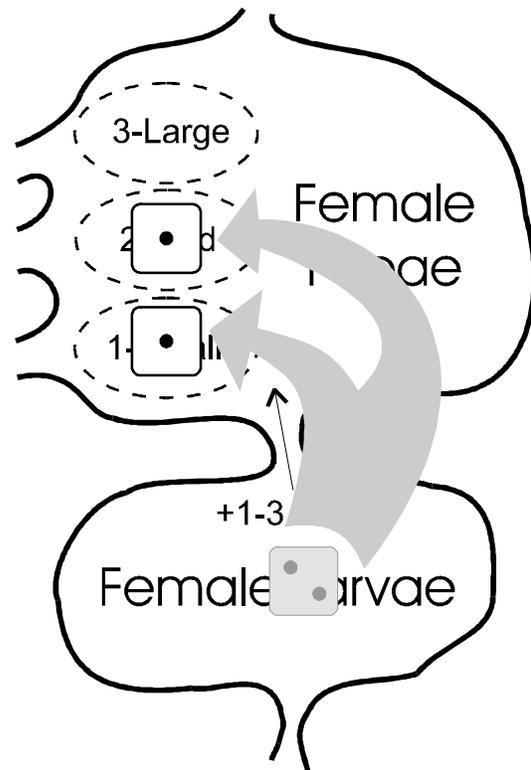
Larva Sex	Food Units	Pupa Size
Male	1	n/a
Female	1	Small
Female	2	Medium
Female	3	Large

Move Counters: After feeding your larvae, move all counters from the Female Larvae chamber to the Female Pupae chamber and move all counters from the Male Larvae chamber to the Male Pupae chamber. Place counters representing female larvae that were fed 1 food unit into the circle labeled “Small”, 2 into “Medium”, and 3 into “Large”.

Completion: When you finish this step there will be no markers in either of your Larvae chambers.

Media Trait: You may produce a medium pupa *only* if you have a Trait card that allows you to produce medias.

Example: You have 2 female and no male larvae. You choose to feed 1 larva 1 food unit and the other 2 food units. You reduce the amount of food available by 3 and remove the ‘2’ counter from your Female Larvae chamber, replacing it with a ‘1’ counter in the “Small” circle and a ‘1’ counter in the “Med” circle of your Female Pupae chamber.



OPTIONAL RULES

Use all, some, or none of these rules to modify Hidden Empires to suit your own taste. Or make up your own optional rules!

Random Turn Order

First Player: At the beginning of each game turn, place an ant counter from every player into an opaque container. Then draw 1 counter from the container to determine who takes the first player turn.

Next Player: At the end of each player turn, draw another counter from the container to determine who moves next. If there are no more counters in the container it is time for the Nest Phase.

Restart

If all of your mother queens are killed you may abandon your colony and start a new one somewhere else. Remove your Nest marker from the map and place it in a different area so that its exactly 3 away from at least 1 other player's nest and not adjacent to any player's nest. Set up your Nest Sheet according to the Set Up Nests Sheets rules on page 6. Discard all of your cards including faceup Trait cards but keep your score and DNA.

Down with the Queen

Ignore the standard victory conditions. In this variant the first player who kills an opposing queen wins.

Fewer Events

Ignore the Draw a Card step. When you setup the game, create a deck containing only Event cards. At the beginning of each *game turn*, draw a single Event card and apply the results.

Realistic Time Scale

Ignore the Draw a Card step. Each player starts the game with 3 Trait cards.

Setup: Create a deck containing only Trait cards. Deal 4 cards facedown to each player. Keep 1 card and pass the remaining 3 to the player on your left. Then keep a 2nd card and pass the remaining 2 to your left. Finally, keep a 3rd card and discard the 4th.

Type Restriction: You may not keep cards with the same trait types. Therefore it is possible to start the game with fewer than 3 Trait cards.

The time scale of ant colony growth and reproduction is measured in months or years, while the progress of evolution takes millennia. In the real world, ant colonies must work with the genes they start with.



Getting Started (page 6)

1. Choose Colors
2. Place Nest Markers
3. Place Discovery Markers
4. Setup Nest Sheets
5. Setup Cards (advanced game)

Player Turn (page 7)

1. Draw a Card (advanced game)
2. Move Workers
3. Scout Areas (advanced game)
4. Perform Tasks

Draw a Card (advanced rules page 20)

- Event (🗡️) - play immediately
- Hand (👉) - keep and play on your turn
- Trait - start a trait auction

Move Ants (page 8, advanced rules page 21)

1. Redistribute
2. Move One Area (advanced game: only 1 scout may move into an area with opposing patrollers or a facedown discovery marker)

Check Nest Size (page 8)

Nest Size \geq
nurses +
reserves +
reproductives +
brood members

Check Brood Size (page 8)

1 Nurse for every 10 Brood

Scout Areas (advanced rules page 21)

1. Patrollers Search
2. Patrollers React
3. Turn Discovery Marker Faceup
4. Reinforce

Patrollers Search (advanced rules page 21)

Roll dice = Number of patrollers
1 - Scout killed
2, 3 - Scout returns
4, 5, 6 - Scout remains,
patrollers react

Perform Tasks (page 9, advanced page 22)

- Attack - attack opposing ants
- Build - increase your nest size by 2
- Forage - produce food / DNA (advanced)
- Nurse - 1 required for every 10 brood
- Patrol - repel opposing scouts (advanced)
- Reserve - reinforce patrollers or scouts (advanced)

Forage (page 10, advanced rules page 22)

- Produce 1 food unit for each forager
- Produce 1 DNA for each color foraged (advanced)
- Harvest or Tend
- Prey may be only harvested
- Area with opposing ants may be only harvested
- Food produced limited by foraging trail

Harvest (page 10)

Foragers: up to 6
Roll Dice: number of foragers
Add one - for *each* result of '1'

Tend Aphids (page 10)

Foragers: up to modified value
Roll Dice: number of foragers
Add one + if *any* result is '1'

Tend Plants (page 10)

Foragers: up to modified value

Combat (page 12, advanced rules page 22)

1. Defenders Scatter
2. Total Combat Points
3. Resolve Loses
4. Invade the Nest (advanced game)
 - a. Defenders Scatter - may protect brood
 - b. Carry Off Brood
 - c. Kill the Queen
5. Stay or Return / or Patrol (advanced game)

Defenders Scatter (page 12)

Roll dice = Up to number of defenders
 1, 2, 3 - Move 1 defender to Returning Ants
 4, 5, 6 - No effect

Kill the Queen (advanced rules page 23)

Roll dice = Up to number of attackers
 Kill 1 queen if *any* result is '1'

Nest Phase (page 13, adv. page 24)

1. Return Ants - to nest sheet or nest area
2. Feed Nest Adults
3. Pupae Emerge
4. Feed Larvae
5. Eggs Hatch
6. Lay New Eggs (optional)
7. Discard Food
8. Nuptial Flight (optional)

Feed Nest Adults (page 13)

Feed Nest Adults:
 nurses
 builders
 virgin queens
 drones

Pupae Emerge (page 14, advanced page 24)

Pupa Sex	Pupa Size	Adult Caste
Male	n/a	Drone
Female	Small	Worker
Female	Medium	Media*
Female	Large	Major* or Virgin Queen

* Advanced Game

Feed Larvae (page 14, advanced page 25)

Larva Sex	Food Units	Pupa Size
Male	1	n/a
Female	1	Small
Female	2	Medium*
Female	3	Large

* Advanced Game

Winning the Game

Nuptial Flight: You score points when your reproductives leave your nest during a nuptial flight. You score 4 points for each pair of virgin queens and drones that leave. In addition, you score 2 points for each unpaired virgin queen and 1 point for each unpaired drone that leaves.

Winning: At the end of every game turn check each player's score. If 1 or more players has a score of 16 or higher, the game ends and the player with the highest score wins the game. If 2 or more players have the same score of 16 or higher, the game ends in a tie.

Ties: In the advanced game, if 2 or more players have the same score of 16 or higher, the player with the most DNA wins.

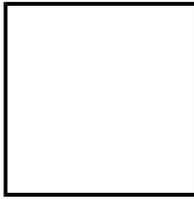
Game Length: If everyone agrees before starting, you may play to a higher or lower score for a longer or shorter game.

Nest Size

Starting Size 

Nest Size \geq
nurses +
reproductives +
brood

Returning Ants



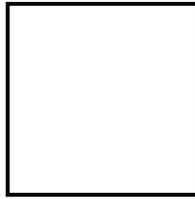
Move to your Nest Area at the beginning of the Nest Phase.

Score

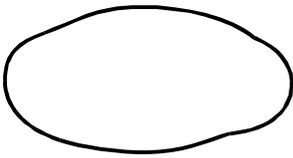


Each Nuptial Flight:
Pair = 4 points
V. Queen = 2 points
Drone = 1 point

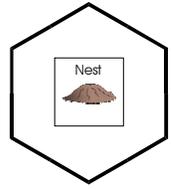
Food Available



Builders

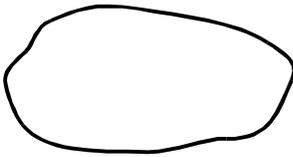


Add 2 to your nest size for each builder. Builders do not count against your nest size.

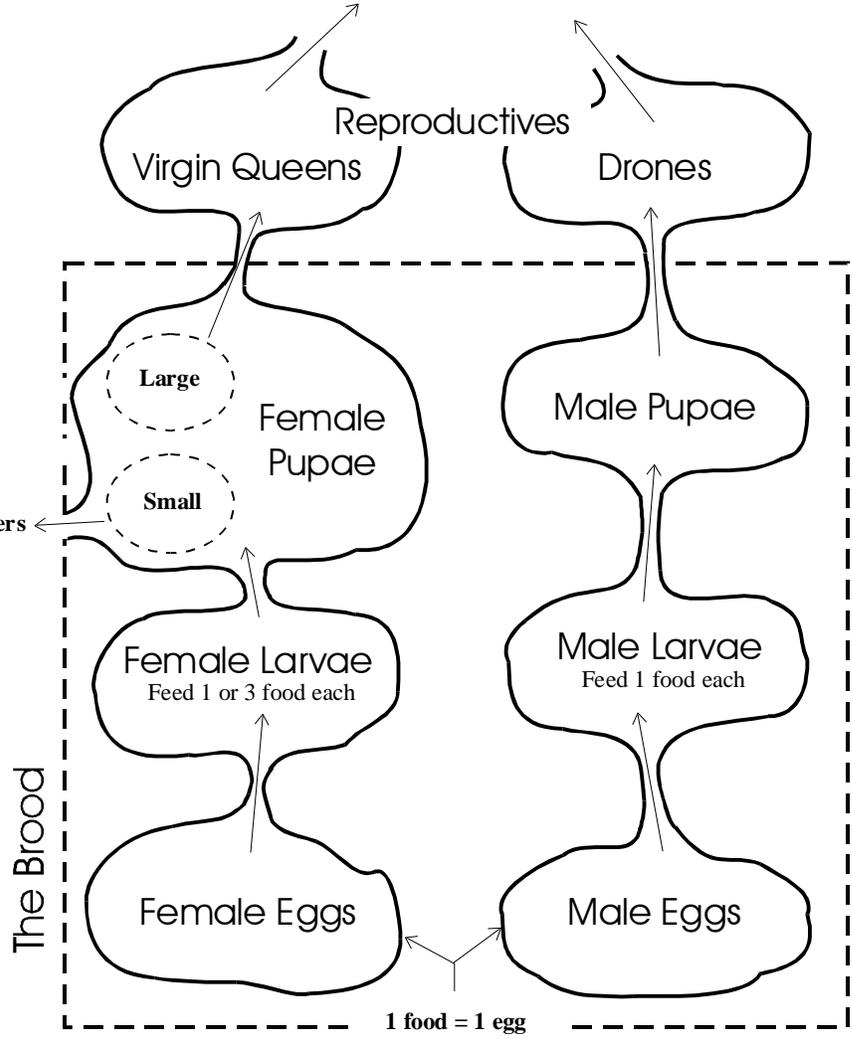


Move new workers to your Nest Area.

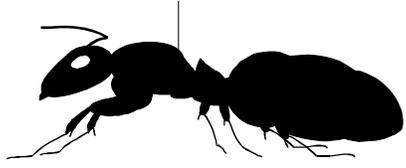
Nurses



You must have at least 1 Nurse for every 10 Brood.



Your queen may lay up to 6 eggs per turn.



Mother Queen

Nest Size

Starting Size 

Nest Size \geq
nurses +
reserves +
reproductives +
brood

Returning Ants

Move to Reserves and/or Nest Area at the beginning of the Nest Phase.

DNA

Score

Each Nuptial Flight:
Pair = 4 points
V. Queen = 2 points
Drone = 1 point

Food Available

Builders

Add 2 to your nest size for each builder. Builders do not count against your nest size.

Reserves

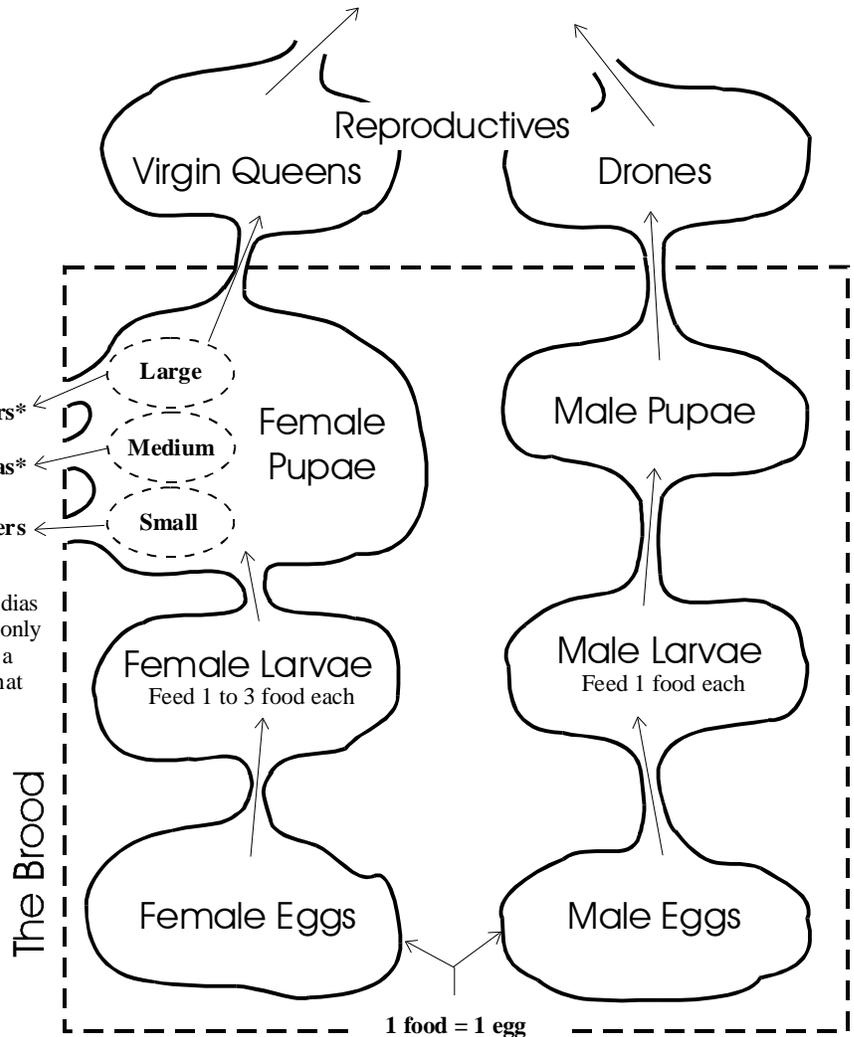
Do not feed Reserves.

Nurses

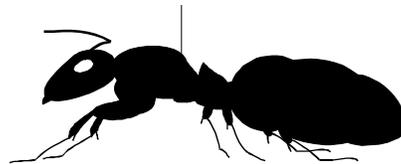
1 Nurse for every 10 Brood

Storage

You may use Storage only if you have a Trait card that allows it.



Each queen may lay up to 6 eggs per turn.



Mother Queen

Additional Queens

Plant Specialist Trait



Your ants may forage *only* plants. However, each of your foragers produces 2 food units. You still receive bonus food from Caterpillars and other cards.

DNA: You receive 2 DNA for each color foraged.

Central and South American leafcutters rely almost exclusively on food provided by the fungal gardens they grow inside their nest. The fungus grows on a constant supply of fresh leaf matter carried in by the ants.

Aphid Specialist Trait



Your ants may forage *only* aphids. However, each of your foragers produces 2 food units. You still receive bonus food from Caterpillars and other cards.

Aphid Growth: Roll dice equal to the number of foragers, not the amount of food produced.

DNA: You receive 2 DNA for each color foraged.

Restrictions: You may not bid on Aphids Specialists if you have the Harvesters or Miller traits and vice versa.

Hypoclinea cuspidatus ants of the Malaysian rain forest are entirely dependent on their aphid herd for food.

Prolific Queen Trait



During the Nest Phase, your mother queen may lay any number of eggs. Your queen must consume 1 food unit for each egg she lays.

The number of workers in a colony of South American leaf cutter ants, all daughters of a single mother queen, can number in the millions.

Trunk Building Trait



You may attempt to create trunks during your Perform Tasks step.

Procedure: Place a Trunk marker in an area adjacent to your Nest or another Trunk marker. The area must not contain a Nest or Nest Site. Remove any discovery marker in the area. Place workers in the area so they touch the Trunk marker to distinguish them from foragers and patrollers. Roll a number of dice equal to the number of trunk workers. If any result is odd, the trunk is completed successfully. Otherwise, remove the Trunk marker.

Foraging Trail: You may trace a foraging trail to your nearest Nest or Trunk marker.

Bivouac Trait



Your nest size is always equal to 10 times the number of workers assigned to your Builders chamber. If you do not have at least 1 builder at the end of your Move Workers step, your queen(s) and brood are eliminated.

Migrate: During your Move Workers step, you may move your Nest marker into an adjacent area if that area does not contain a Nest or Nest Site marker. Remove any Discovery or Trunk marker from the area. You may not lay eggs during the subsequent Nest Phase.

Army ants, and the aphid herding Dolichoderus ants, do not build or dig nests. Instead they create a living shelter using their own bodies. This allows the colony to migrate frequently.

Supercolony Trait



During nuptial flights, you may place a Nest Site marker in an area adjacent to your Nest or another Nest Site. The area must not contain a Nest marker. Remove any Discovery or Trunk marker from the area.

Queens: Your supercolony has 1 mother queen for each Nest and Nest Site marker. If a queen is killed, remove 1 Nest or Nest Site marker.

Nest Size: Add 10 to your nest size when you add a Nest Site maker. Likewise, subtract 10 when you remove a Nest Site maker.

Foraging: You may trace a foraging trail to your nearest Nest or Nest Site marker.

Slave Making Trait



After attacking a nest, you may add to your own brood the small female pupae you carry off. These pupae will emerge as workers during the subsequent Nest Phase. Treat these workers as your own in every manner.

Repletes: You may carry off repletes, and any food they contain, and use them as your own.

European amazon ants are totally dependent on workers, kidnaped as pupa, from other ant species.

Slave making, American honeypot ants will carry off and adopt repletes from other honeypot nests.

Shelter Aphids



When an Environmental Change calls for Aphids markers to be removed from an area that contains your ants, you may move the aphids to your Nest Sheet instead. Discard any associated + or - markers. At the beginning of your next Move Workers step, return to the map any aphids that are on your Nest Sheet. Place each Aphids marker in any area that contains your ants and does not contain your nest. Discard any other discovery marker in the area. Discard any aphids you choose not to return to the map.

Cornfield ants of North America protect their aphid herd by over-wintering aphid eggs in the ant's nest.

Harvester Trait



You may store food in your Storage chamber. The amount of food you may store is limited by your Nest Size. You must have at least 1 point of Nest Size available for every 10 food units stored. If you exceed your nest size you may eliminate stored food to bring down the total.

Messor pergandei survive the harsh conditions of the Sonoran desert by storing large quantities of seeds underground.

Replete Trait



You may produce medias, called repletes, and place them in your Storage chamber. Each replete may store up to 10 food units. You may *not* move your repletes out of your Storage chamber.

Repletes count against your nest size but they do not contribute to the defense of your nest.

Honeypot ants of Western North America produce a specialized caste whose members store considerable amounts of liquid food in their swollen abdomens. During times of scarcity, these ants regurgitate the food for their sisters and the larvae.

Deadly Sting Trait



When attacking or defending, each of your workers contributes 2 combat points instead 1.

Other Castes: If you have medias or majors, the number of combat points they contribute does not change.

While most ant species have stings that allow them to inject or spray their enemies with toxins, Leptothorax duloticus workers of North America have a huge poison gland relative to their body size.

Mace Trait



When *attacking*, your workers may drive off defending ants before comparing combat point.

Procedure: Roll any number of dice up to the number of attacking ants. Each result of 1, 2, 3, or 4 forces the defender to move 1 ant of his or her choice to their Returning Ants box. After the defender has returned ants, compare combat points normally.

Slave making Formica subintegra of North America employ a "propaganda chemical" that mimics the alarm pheromones of their victims. This confuses their victims and drives them away.

Suicide Bombing Trait



When *defending*, your workers may explode to eliminate attacking ants.

Procedure: Roll any number dice up to the number of defending ants. For each result of 1, 2, or 3 the attacker must remove that number of his or her ants and you must remove 1 of yours. No ants are removed a result of 4, 5, or 6. After ants have been removed, compare combat points normally. Suicide bombing takes place *after* the effects of Mace, Recruitment, and Repellent.

Camponotus saundersi workers of Malasia can contract special muscles to burst their bodies and shower sticky secretions over their opponents.

Recruitment Trait



When *attacking*, your workers may temporarily recruit defenders.

Procedure: Roll any number of dice up to the number of attacking ants. Each result of 1 or 2 forces the defender to loan you 1 ant of his or her choice. After recruiting, compare combat points normally. You may choose to take losses from your ants or the recruits or both. After combat, move any surviving recruits to their Returning Ants box.

When attacking Leptothorax acervorum on a slave raid, Harpagoxenus sublaevis ants tag their victims with a chemical that causes them to attack one another.

Territory Marking Trait



When *defending*, each of your workers contributes 3 combat points. When attacking, each of your workers contributes 1 combat point normally.

African weaver ants use their excrement to mark their territory. This appears to give the weavers an advantage when defending against ants from another colony.

Repellent Trait



Forage: For each forager you move into an area that contains opposing ants, your opponent must move 1 ant of his or her choice to their Returning Ants box.

Attack: When *attacking*, your workers drive off defending ants before comparing combat points. You may roll any number of dice up to the number of workers you have. Each result of 1, 2, or 3 forces the defender to move 1 ant of his or her choice to their Returning Ants box. After the defender has moved his or her ants, compare combat points normally.

The tiny Forelius pruinosus ants of the Arizona desert use poisons to drive off much larger honeypot ants.

Warning Coloration Trait



Attrition: Your ants may ignore Attrition events.

Predators: When one of your scouts finds a Predator discovery marker, return her to your Returning Ants box unharmed.

Golden Polyhachis ants of Africa sport deadly spines. Their bright coloration serves as a warning to most would-be predators.

Camouflage Trait



Your ants may ignore Predators discovery markers; treat all areas that contain Predators markers as if they were empty.

While most ants keep themselves meticulously clean, Basiceros manni have special hairs that collect dirt from their surroundings. This, coupled with their slow, stealthy habits, makes B. manni very difficult to see on the floor of the Costa Rican forests where they live.

Plant House Trait



You are no longer required to assign builders to increase the size of your nest; your nest size is unlimited. However, you may never play a Migrate Hand card.

Bull's-horn acacia of Mexico and Central America provide enlarged hollow thorns for Pseudomyrmex colonies to occupy. This keeps the ants close at hand to ward off herbivorous insects and to prune back encroaching plants.

Specialist Forager Caste Trait



You may produce medias and assign them to any task.

Harvesting: When *harvesting*, each of your medias count as 3 foragers (6 if you have the Aphids or Plants Specialist Trait.) Roll dice equal to the number of harvesting *ants*, not the amount of food produced.

Combat: Each media contributes 2 combat points.

South American leafcutters have a middle-sized worker caste whose members use their larger mandibles to harvest leaves that are too big or too tough for their smaller sisters. Army ants employ medias to subdue and carry back prey items too large for their minors.

Porter Caste Trait



You may produce medias and assign them to any task.

Foraging Trail: When you trace a foraging trail through an area that contains your medias, count each media as 3 workers.

South American army ants produce many different casts. One of them is a middle-sized worker that specializes in moving captured prey from the front line of a swarm raid back to the nest. These medias have long legs and carry food faster and more efficiently than their smaller sisters.

Guard Caste Trait



You may produce medias and assign them to any task.

Attrition: You may ignore attrition events in areas that contain one or more of your medias.

Combat: Each media contributes 3 combat points.

Malaysian weaver ants produce a soldier caste whose primary duty is to defend the colony's territory.

Soldier Caste Trait



You may produce majors and assign them to any task.

Combat: Each major contributes 5 combat points.

South American army ants such as Eciton burchellii produce a large worker caste specialized for combat. These majors have huge heads equipped with strong mandibles they use to bring down prey and chop up opposing ants.

Miller Caste Trait



You may produce majors and place them only in your Storage chamber. At the beginning of each Nest Phase, each major may convert 1 food unit from your Food Available box into 4 food units.

You must count majors when you check your Nest Size. You are not required to feed your majors during the Feed Nest Adults step. Each of your majors contributes 1 combat point to the defense of your nest.

Majors of native North American fire ants have huge heads with blunt mandibles they use to grind seeds into food edible by the rest of the colony.

Blocker Caste Trait



You may produce majors and place them only in your Reserves chamber.

Nest Defense: When defending your nest, roll a six-sided die for each of your blockers. The attacker must move that many ants, of his or her choice, to their Returning Ants box.

Majors of the Texas species Cephalotes texanus have large, flattened heads they use to block the entrances to their nest.

Bus Caste Trait



You may produce majors and assign them to any task.

Foraging Trail: When you trace a foraging trail through an area that contains 1 or more majors, there is no limit to the amount of food you may move through that area.

Combat: When attacking or defending, each of your majors contributes 4 combat points.

Major workers of the Asian marauder ant Pheidologeton diversus are 500 times heavier than their minor workers. Each major can carry over a dozen minors to a feeding area.

Highwayman Beetles



Add a - marker to any 1 area that contains foraging ants and a faceup Prey, Aphids, or Plants discovery marker.

European Amphotis marginata beetles lurk on the trails of foraging ants and steal food from those who pass by. A worker with a full crop will normally regurgitate a portion of food for a nest mate in response to antennae tapping on the worker's head and mouth. The beetles mimic this behavior to induce a foraging worker to give it food.

Caterpillars



Immediately place 6 additional food units in each player's Food Available box.

The caterpillars of Lycaenid butterflies attract ants with sugary food they secrete from special organs. These caterpillars produce food for ants in exchange for protection from parasitic wasps and other predators.

Additional Queen



Adopt an additional queen. Each of your queens may lay up to 6 eggs each Nest Phase.

Australian meat ants sometimes adopt a closely related, newly mated queen into their colony.

Migrate



During your Move Workers step, you may move your Nest marker into an adjacent area if that area does not contain a Nest or Nest Site marker. Remove any Discovery or Trunk marker from the area.

You may take 10 brood members for each worker in your Nurses chamber; any excess brood is lost. Your mother queen may not lay eggs during the subsequent Nest Phase. Your new nest starts with a size of 10.

Bivouac or Plant House: You may *not* play this card if you have the Bivouac or Plant House trait.

Predator Migration



You may play this card to move any 1 faceup Predator discovery marker to an adjacent area. The area you move the predator into must not contain a Nest or Nest Site marker. Remove any other Discovery or Trunk marker from the area.

If there are ants in the area, roll a number of dice equal to the number on the Predator marker. For each result of "1", the owner must eliminate 1 ant of his or her choice. All other ants in the area must move to their Returning Ants box.

Seal Nest Entrances



You may play this card during another player's turn to stop that player from invading your nest. The opposing player may attack your ants outside of your nest normally. Your nest is protected only until the end of the opposing player's turn.

When honeypot ants of the American southwest detect that an invasion is imminent, they seal the entrances of their nest to prevent the attack.

Food Eggs



For each worker in your Nurses chamber, add 2 food units to your Food Available box.

In wide variety ant species, workers lay non-viable eggs that are consumed by the larvae or queen.

Male Eggs



You may play this card during the Lay New Eggs step of the Nest Phase. For each worker in your Nurses chamber, add 1 egg to your male Eggs chamber.

Workers of many species lay male eggs in addition to or in competition with the eggs laid by the mother queen. Honey pot workers of the American southwestern desert lay all of the male eggs for the colony; the queens produce only females.

Rove Beetles



You may play this card against an opponent who has 2 or more larvae. Your opponent must eliminate 1/2, rounded down, of his or her larvae. If female and male larvae are present, your opponent chooses how many of each sex to eliminate.

Some species of rove beetles use pheromones to fool ants into accepting them into their nest. Once in the nest these beetles produce their own larvae who are accepted by the ants as their own. Unfortunately for the ants, the diet of a rove beetle larva is ant larvae.

Thief Ants



You may play this card during the Nest Phase against any opponent who has 2 or more food units in his or her Food Available box. Your opponent must eliminate 1/2, rounded down, of his or her food.

Tiny Solenopsis molesta ants of the United States nest inside of or near the colonies of larger ants. They steal their host's food and prey on their brood.

Guest Queen



You may play this card against an opponent who has 2 or more reproductives. During his or her next Nuptial Flight (even if it takes place on a later turn,) your opponent must eliminate 1/2, rounded down, of his or her reproductives before scoring. Your opponent chooses how many of each sex to eliminate.

A small Myrmica hirsuta queen infiltrates the nest of the closely related M. sabuleti and raises her own brood among them. This parasitic queen produces no workers of her own. She produces only reproductives who are fed and cared for by the host workers.

One Queen



You may play this card against an opponent who has 2 or more mother queens and 10 or more workers. Your opponent must eliminate all but one of his or her mother queens.

Supercolony: You may not play this card against an opponent who has the Supercolony Trait card.

South Australian dinosaur ant colonies are usually founded by multiple queens. However, when the first workers emerge they drive off all but one of the queens.

Larval Food



You may play this card during the Feed Adults step of the Nest Phase. For each larva in your nest, add 2 food units to your Food Available box.

Workers bring food from the outside to feed larvae inside the nest. In some species, the larvae process the food by adding amino acids and other nutrients and then return part of the food to the workers. Pharaoh's ants depend on these larval secretions during lean times when no other food is available.

Mutate



Trait Auction: You may start a Trait auction. Draw and discard cards until you draw a Trait card. Then begin the auction.

Duplicate Trait Types: During the auction you may bid on a trait type you already have. If you win a second trait of the same type, you must discard the original trait.

Hybridization



Gain DNA: Roll a six-sided die and gain that many DNA.

Trait Auction: After gaining DNA, you may start a Trait auction. Draw and discard cards until you draw a Trait card. Then begin the auction.

In the American southwest, hybrid colonies of harvester ants have been found containing both Pogonomyrmex barbatus and P. rugosus lineages. Daughters belonging to the same line as the mother queen become virgin queens while daughters from the outside lineage become workers.

Genetic Bottleneck



Lose DNA: Roll a six-sided die and lose that many DNA.

Trait Auction: After losing DNA, you may start a Trait auction. Draw and discard cards until you draw a Trait card. Then begin the auction.

Argentine ants in California have low genetic diversity because they are descendants of a small number of transplants.

Aphid Predation



Remove faceup Aphids discovery markers, and their associated + or - markers, from every area that does not contain *patrollers*.

Ant-tended aphids are dependent on their ants for protection. When there are no ants in an area to ward off predators, these aphids quickly die out.

Aphid Predation



Remove faceup Aphids discovery markers, and their associated + or - markers, from every area that does not contain *patrollers*.

Ant-tended aphids are dependent on their ants for protection. When there are no ants in an area to ward off predators, these aphids quickly die out.

Ant-Dispersed Seeds



Add a + marker to every faceup Prey discovery markers.

*The violet *viola nuttallii* produces seeds with a nutritious appendage called an elaiosome. Ants gather these seeds in order to eat the elaiosomes, thereby helping the plants disperse their seeds over a wide area.*

Poor Growing Season



Add a - marker to every faceup Plants discovery marker.

Reshuffle: When you have finished, reshuffle the deck. Make sure you add Poor Growing Season back in before you reshuffle.

Plant Eating Insects



Add a - marker to every faceup Plants discovery marker in an area that does not contain *patrollers*.

Bull's-horn acaia depend on their ant residents to protect them from herbivorous insects and the encroachment of competing plants.

Plant Eating Insects



Add a - marker to every faceup Plants discovery marker in an area that does not contain *patrollers*.

Bull's-horn acaia depend on their ant residents to protect them from herbivorous insects and the encroachment of competing plants.

Environmental Change

Remove Markers: From every **red** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **red** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Environmental Change

Remove Markers: From every **yellow** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **yellow** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Attrition

From every **red** area on the map, each player must remove 1 ant.

Life is hard, especially when you are near the bottom of the food chain. Except for mother queens, who are cared for and protected in the heart the colony, the life expectancy of a typical ant can be measured in a few days or weeks.

Attrition

From every **yellow** area on the map, each player must remove 1 ant.

Life is hard, especially when you are near the bottom of the food chain. Except for mother queens, who are cared for and protected in the heart the colony, the life expectancy of a typical ant can be measured in a few days or weeks.

Environmental Change

Remove Markers: From every **green** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **green** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Environmental Change

Remove Markers: From every **brown** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **brown** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Attrition

From every **green** area on the map, each player must remove 1 ant.

Life is hard, especially when you are near the bottom of the food chain. Except for mother queens, who are cared for and protected in the heart the colony, the life expectancy of a typical ant can be measured in a few days or weeks.

Attrition

From every **brown** area on the map, each player must remove 1 ant.

Life is hard, especially when you are near the bottom of the food chain. Except for mother queens, who are cared for and protected in the heart the colony, the life expectancy of a typical ant can be measured in a few days or weeks.

Environmental Change

Remove Markers: From every **red** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **red** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Environmental Change

Remove Markers: From every **yellow** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **yellow** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Environmental Change

Remove Markers: From every **gray** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **gray** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Good Growing Season

Grow Plants: Add a + marker to every faceup Plants discovery marker.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in every **central** area that does not contain another marker.

Ants: If there are ants in an area where a new marker is placed, turn it faceup.

Predator: If the marker is Predators, move all of the ants in the area to their Returning Ants box unharmed.

Environmental Change

Remove Markers: From every **green** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **green** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Environmental Change

Remove Markers: From every **brown** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **brown** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

Environmental Change

Remove Markers: From every **gray** area, remove faceup Aphids, Predator, and Prey discovery markers and their associated + or - markers. Leave Plants.

Randomize: Place together all discovery markers not on the map and mix them facedown.

Place Markers: Without looking, place 1 discovery marker facedown in each empty, central, **gray** area.

Ants: If there are ants in the area, turn the marker faceup. If you turn up a Predators marker next to another Predators, replace it by drawing from the unused markers until you get one that is not Predators. Otherwise, leave the Predators and move all ants from the area to their Returning Ants box unharmed.

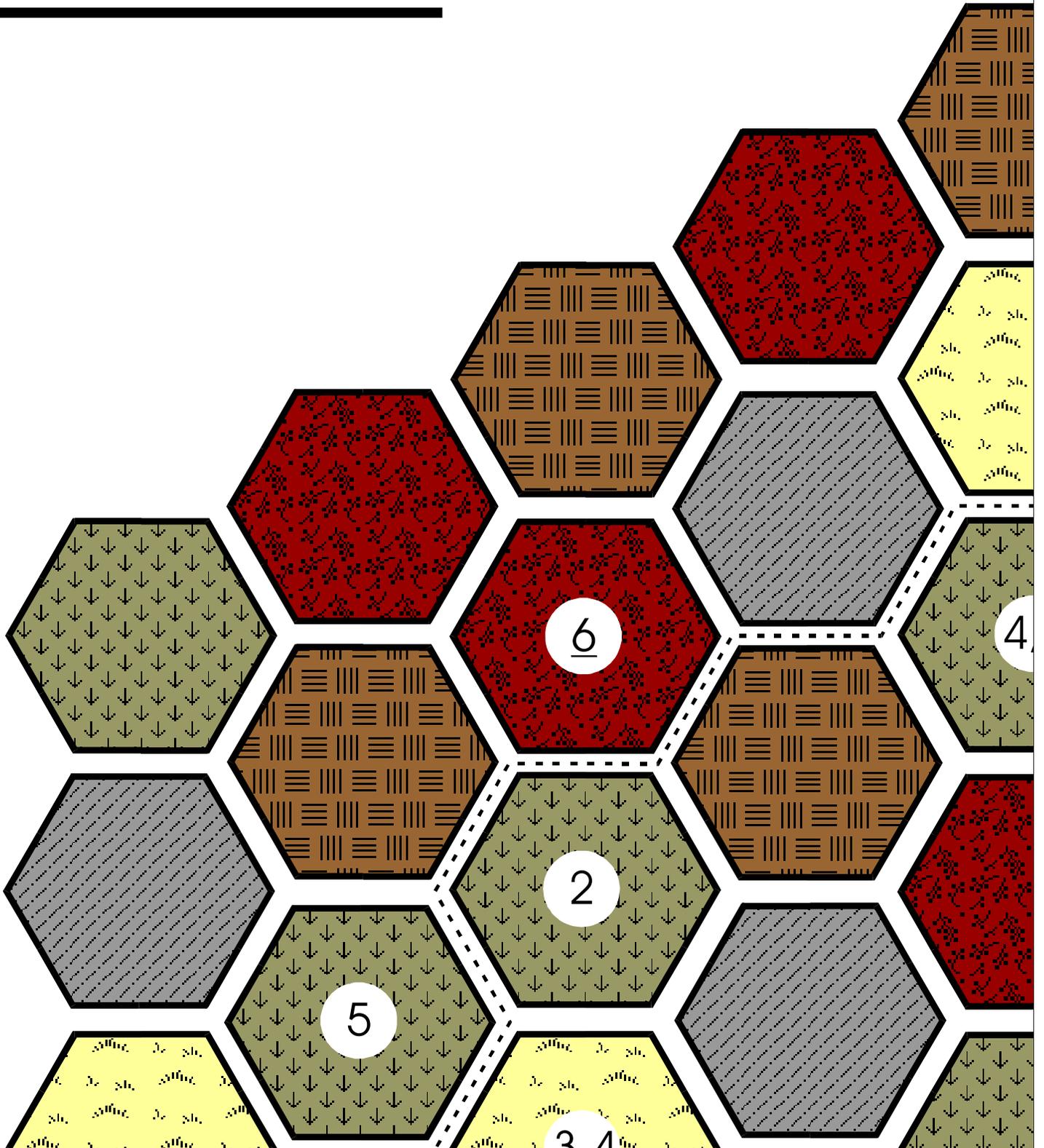
Attrition

From every **gray** area on the map, each player must remove 1 ant.

Life is hard, especially when you are near the bottom of the food chain. Except for mother queens, who are cared for and protected in the heart the colony, the life expectancy of a typical ant can be measured in a few days or weeks.

**HIDDEN
EMPIRES**

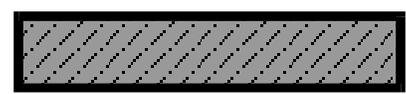
HIDDEN EMPIRES



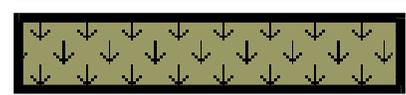
Brown



Gray



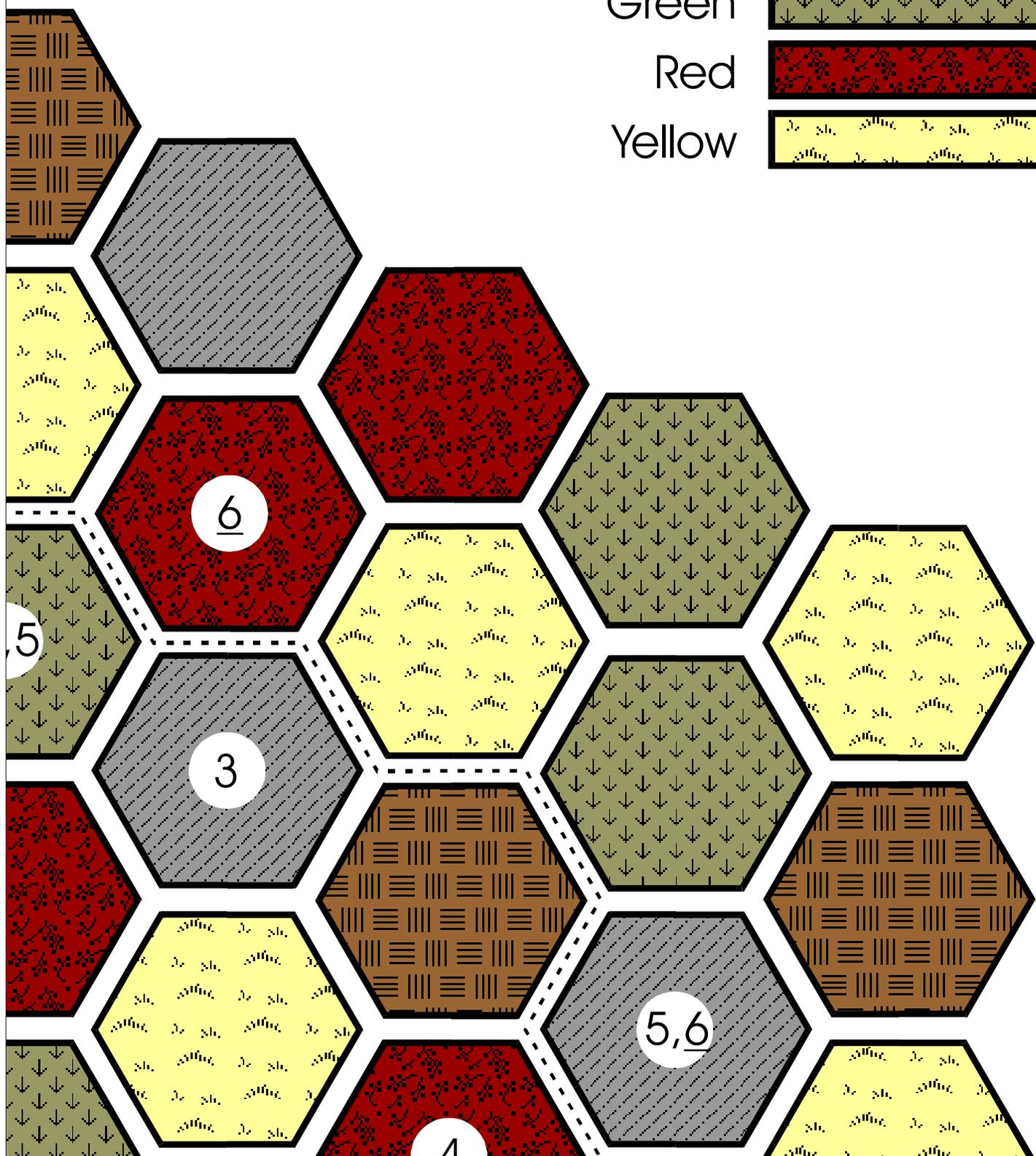
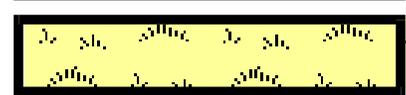
Green

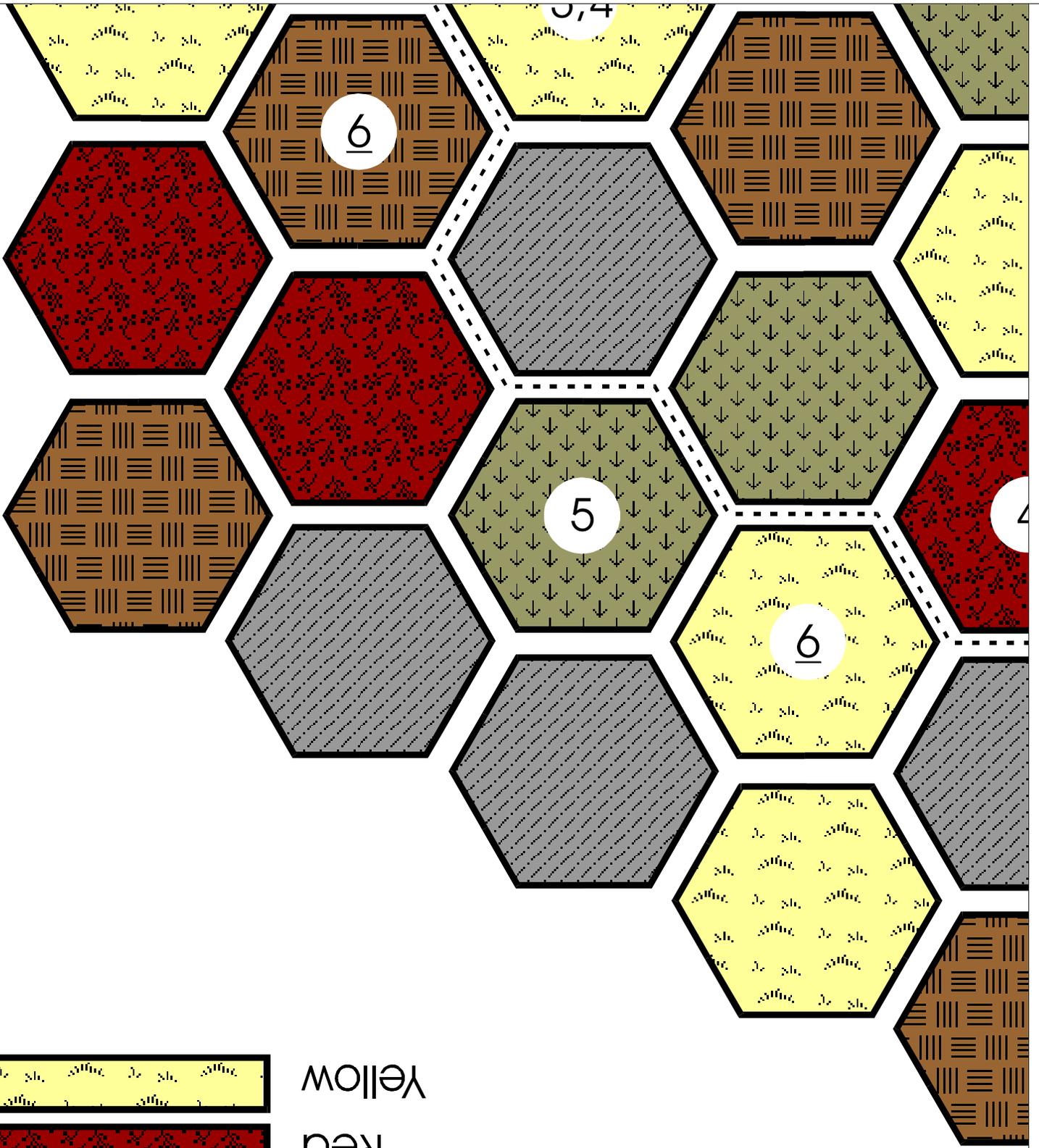


Red



Yellow

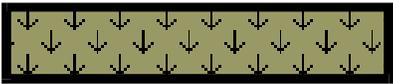




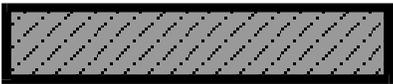
Yellow



Red



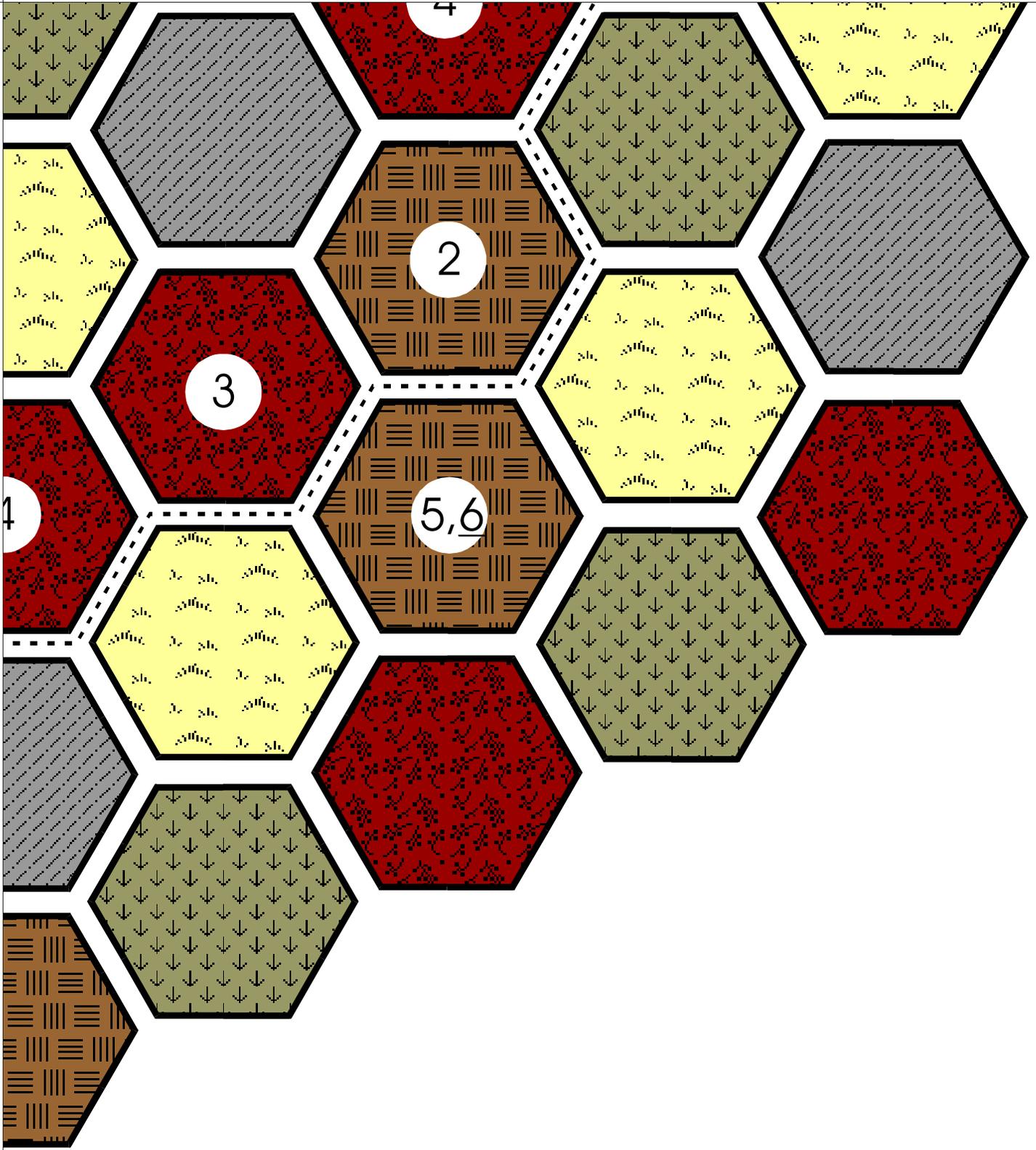
Green



Gray



Brown



HIDDEN EMPIRES

Front

Nest  ?	Worker  1	Worker  1	Worker  1	Worker  1	Worker  1
Worker  1	Worker  1	Worker  1	Worker  1	Worker  1	Worker  1
Worker  1	Worker  1	Worker  1	Worker  1	Worker  1	Worker  1
Workers  3	Workers  3	Workers  5	Workers  5	Workers  10	Workers  10
Medias  1	Medias  1	Medias  1	Medias  1	Medias  1	Medias  1
Medias  1	Medias  1	Medias  1	Medias  3	Medias  5	Medias  10
Major  1	Major  1	Major  1	Major  1	Major  1	Major  1
Major  1	Major  1	Major  1	Majors  3	Majors  5	Majors  10

Back

Worker  1	Worker  1	Worker  1	Worker  1	Worker  1	Nest 
Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1
Worker  1	Worker  1	Worker  1	Worker  1	Worker  1	Worker  1
Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1
Workers  10	Workers  10	Workers  5	Workers  5	Workers  3	Workers  3
Medias  1	Medias  1	Medias  1	Medias  1	Medias  1	Medias  1
Medias  10	Medias  5	Medias  3	Medias  1	Medias  1	Medias  1
Major  1	Major  1	Major  1	Major  1	Major  1	Major  1
Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1
Majors  10	Majors  5	Majors  3	Major  1	Major  1	Major  1

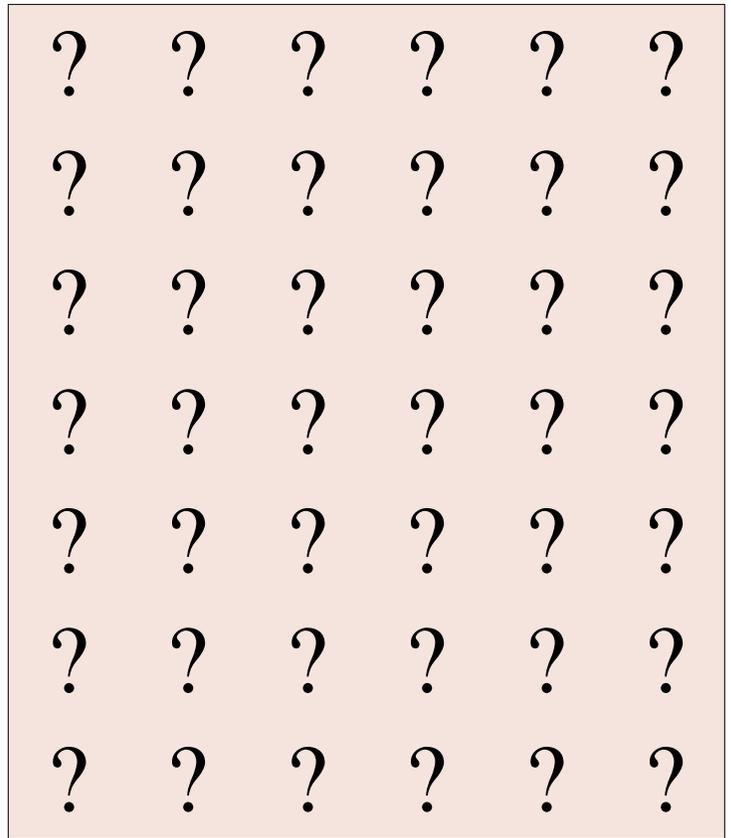
Nest  ?	Worker  1	Worker  1	Worker  1	Worker  1	Worker  1
Worker  1	Worker  1	Worker  1	Worker  1	Worker  1	Worker  1
Worker  1	Worker  1	Worker  1	Worker  1	Worker  1	Worker  1
Workers  3	Workers  3	Workers  5	Workers  5	Workers  10	Workers  10
Medias  1	Medias  1	Medias  1	Medias  1	Medias  1	Medias  1
Medias  1	Medias  1	Medias  1	Medias  3	Medias  5	Medias  10
Major  1	Major  1	Major  1	Major  1	Major  1	Major  1
Major  1	Major  1	Major  1	Majors  3	Majors  5	Majors  10

Worker  1	Worker  1	Worker  1	Worker  1	Worker  1	Nest 
Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1
Worker  1	Worker  1	Worker  1	Worker  1	Worker  1	Worker  1
Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1
Workers  10	Workers  10	Workers  5	Workers  5	Workers  3	Workers  3
Medias  1	Medias  1	Medias  1	Medias  1	Medias  1	Medias  1
Medias  10	Medias  5	Medias  3	Patrol  1	Patrol  1	Patrol  1
Major  1	Major  1	Major  1	Major  1	Major  1	Major  1
Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1	Patrol  1
Majors  10	Majors  5	Majors  3	Major  1	Major  1	Major  1

Front

Back

Predator  1	Prey  1	Prey  1	Prey  1	Prey  1	Empty
Predator  2	Prey  1	Prey  1	Prey  1	Prey  1	Empty
Predator  3	Prey  2	Prey  2	Prey  2	Prey  2	Empty
Predator  4	Plants  1	Plants  1	Plants  1	Plants  1	Empty
Predator  5	Plants  2	Plants  2	Plants  2	Plants  2	Empty
Predator  6	Aphids  1	Aphids  1	Aphids  1	Aphids  1	Empty
Predator  7	Aphids  2	Aphids  2	Aphids  2	Aphids  2	Empty



Predator  1	Prey  1	Prey  1	Prey  1	Prey  1	Empty
Predator  2	Prey  1	Prey  1	Prey  1	Prey  1	Empty
Predator  3	Prey  2	Prey  2	Prey  2	Prey  2	Empty
Predator  4	Plants  1	Plants  1	Plants  1	Plants  1	Empty
Predator  5	Plants  2	Plants  2	Plants  2	Plants  2	Empty
Predator  6	Aphids  1	Aphids  1	Aphids  1	Aphids  1	Empty
Predator  7	Aphids  2	Aphids  2	Aphids  2	Aphids  2	Empty

