



THE INVERTEBRATE KINGDOM

A GAME BY ARRON WATSON

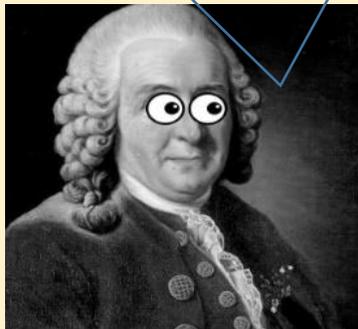
ART BY KELLY-ANNE BATCHELOR

GRAPHICS BY TOM MORGAN

Overview

The invertebrate kingdom is a game of survival, strategy and a bit of luck. There are many invertebrates that live in the kingdom and each have different abilities allowing them to survive. They do this by using their strength or armour (physical adaptations), or by being able to trick other insects and escaping being eaten using special abilities (behavioural adaptations). Your goal is to be the last person in the game and have the last surviving insect. There are three levels to playing the two player Invertebrate Kingdom, the first is a simple attack, armour game, and this is aimed at younger players and no special abilities are used. The second method is using the attack and armour method but also then using the special abilities to try and remove the stronger players, but be warned, there are only limited resources inside the Invertebrate Kingdom so you may only get one chance to save yourself. The third level is the action card phase which removes resources from each player's hands, these tend to be used as your last resort, only use these cards if you think you can win with no resource available.

"Hi my name is Carl Linnaeus, while learning how to play this game you will come across many words you may not understand, these words were placed in the game for you to learn about and understand the wonders of the Invertebrate Kingdom. One of the important things you will learn as you play are the scientific names of the different insects. You will notice my name on some of the cards along with a date, this is called 'scientific authority' because I first described this species. I loved discovering new creatures and this game may make you want to explore new creatures too or read about the people who discovered them."



Gameplay (two player)

Setup

1. Right click shuffle on all decks
2. Take 6 green cards (insect cards) each
3. Take 7 blue cards (resource cards) each
4. Leave the brown (action cards) until you want to use them
5. Look at your hand, read the special abilities, decide who goes first by either picking or by answering a question featured in the instructions

Game play

1. Both players take one extra blue card per fighting turn (every time a player attacks), repeat this until all cards are gone or a player has had all insects destroyed.
2. Both players take one green card per fighting turn until all cards are gone.
3. The person who goes first attacks. The opponent picks a card from their hand to retaliate with and has to beat the ATTACK number with their ARMOUR number. If the armour number is higher, the attacker card dies. If the attack number is higher the armour card dies.
4. When both ATTACK and ARMOUR numbers draw, you then move to the defence number, highest DEFENCE number wins
5. If it's a draw on all three numbers, the cards are frozen if you do not use your special abilities to alter the scores and you must play again to determine the fate of the all cards in play.
6. Resource cards must be discarded once used, read how much per special ability are needed to power a card.
7. Repeat this process, player 2 attacks this time, player one armours against the attack.
8. While repeating this process you have a way of changing the outcome of each round by using special abilities. Special abilities increase attack or defence. These can be used to surprise your opponent once the cards are shown, you need to call out "special ability" to use it.
9. Attack special ability increases the chance of beating the opponents armour, they will have to play regardless per round.
10. Defence special ability is there to be used when it's a draw, it can change the outcome of the draw for defence.

11. If both insects are the same species, they automatically get frozen on the scores as the special abilities are the same, use step 3.
12. Action cards are the last method of changing the outcome of a game, a card can be picked up at any time and must be played immediately. If you think you have a bad hand this is where it can come in handy, but remember, it effects everyone see “action cards” for details.

YouTube – “How to play the Invertebrate Kingdom” for a visual guide.

Special abilities: the next part of the game is using the special abilities which are powered by limited resource, once you use them they are disposed of until the next game. As you will notice, there are not many resource cards but lots of insects. In the Invertebrate Kingdom, food, habitat, water and sunshine aren't always free to access so you have to survive with what you are given. 7 resource cards should allow you to power at least two insect's special abilities, it is up to you when you use them to remove your opponent's stronger cards. Once you have played the game a few times, you will notice the right opportunity to use those special abilities and outwit your opponent. There are different special abilities for each insect but they follow a theme which are described in more detail below. Only one special ability overall may be used per turn, so call it quickly (once the cards are down) to defeat your opponent!

Plus attack – Certain insects have an increase to their attack as their special ability. This could be in the form of +3 or +5, and it's added to your current attack (e.g. 5 attack +3 = 8 overall). You can add this to your card at the beginning of your go or once both cards are on the table. If you use it once both players' cards are on the table the other player cannot override this and instantly dies if it's higher than their armour (see images for examples).

Plus defence – Certain insects have an ability to increase their defence which is used when there are situations when cards may draw. For example if player 1 has 6-5-7 and attacks player 2 who has 5-6-7 it's a draw because 5 attack is the same as 5 armour, it then moves to defence which is a draw 7 and 7. There are two options, one, the cards are frozen and you play again to determine the fate of these cards. Or two, you use your special ability and increase your defence and win the draw. There is a tactic of when to use this ability, maybe use it on the last card you have? Be sure to call out “I use special ability” before your opponent does.

Emerald Jewel Wasp: Zombification – This special ability is quite different and has been added for this wasp's unique behaviour in the Invertebrate Kingdom. When used it freezes the other players card, there is no outcome to the battle regardless if they have a higher armour or attack. When used, the player's insect you use it on is placed aside for two rounds and is now frozen from all game play. This is two rounds not including the round you froze the players card. Be careful when you use it, as that player will return to take revenge.

Scorpion Fly: surprise attack – This card has a unique ability which can be used at any time to help your card which may draw on defence who is in battle. The best time to use this is when are being attacked and you think it may lead to a draw on defence (see the plus defence section, this has the opposite effect). Half their defence using this special ability to win the defence draw, also, you don't need to have it placed on the table to use it.

Receiving help from another insect – the aphid has a special ability to summon the ant to take its place, you can use this in various ways. For example, you use the aphid to attack which has a very low attack, your opponent thinks they have an easy win so pick their weaker armour. You then surprise them with the ant and add your attack value with the ants (1+6=7). This works for armour as well, if you are attacked you can add the ants armour and defence of the aphid with the ant. Why would you do this when you could just use the ant instead? It's about tricking your player into using some of their stronger cards and removing those cards who keep coming back to attack you. Plus, aphids are cool!

Action cards

The purpose of these cards is to counteract the opponent's stronger hand and level the playing field, or when you use all your resource and your opponent has theirs, you can remove it. Each card removes resource, but it removes it for both of you, choose wisely!

Climate Change – climate change is real, it's making the planet hot and cold and it's having an impact on ALL of the insects in the kingdom by heating up their **habitat and food**. There is extreme weather which destroys all of these resource cards, discard them until the game is over.

Drought - drought is where the sky hasn't rained for a long time and the ground dries up causing the plants to die, it is also becoming a more common around the world. It's been sunny for two weeks and the plants and insects in the kingdom aren't doing very well, remove all the **water resource cards** until the game is over.

Flooding - flooding is caused by torrential (long periods) of rainfall which eventually cause rivers to overflow and move into places where it shouldn't be. It's been raining for two weeks non-stop, a river in the Invertebrate Kingdom has burst its banks (overflow) and rolling down the hills towards you. All **habitat and sunshine cards** are removed until the end of the game.

Urbanisation - urbanisation is very complex, and can be thought of when a city becomes bigger moving over different habitats such as trees or plants. Here in the Invertebrate Kingdom a city nearby has decided to build more houses on the kingdom causing the trees and plants to be destroyed. As the bulldozers come in, all of the **food and habitat** is removed until the end of the game.

Resource cards

Sunshine – many invertebrates are ectothermic requiring a form of external warmth, especially many flying insects.

Water – many invertebrates need water to survive, they may absorb this through their food by eating other insects or by drinking nectar from flowers.

Food – like humans, invertebrates need to eat, whether that be other insects, leaves, detritus (look it up), or other strange ways such as how parasites live (Internet search parasitic wasps).

Habitat – we live in houses, invertebrates can live in a number of different places from spiders living in a web, fleas living in the hair of an animal or ants living underground. This provides shelter and a place to eat and be protected from what’s outside.

Gameplay battle (3 player)

This is similar to the two player method, resource cards and action cards can be used. Decide who goes first and then pick a player to attack, moving clockwise (or anticlockwise) the next player chooses who to attack and so on. The player decides who they wish to attack, the aim of the game is still the same, and last card wins.

Card examples

See a list of image examples of how the card play works and when specific scenarios come into play on page 6.

Card example – draw (if in reverse, the beetle would win)



Card examples -



Above: Is the attack number higher than the armour number?
Yes = win, No = Loose, same = draw

Frozen for two rounds! Not including this round. Resource used.



Card examples – draw – special ability win



Questions

1. Name one of other players insects scientific names
2. Name three flying insects
3. Pick an insect card and ask the player to state one fact
4. Pick an insect card and ask where in the world it's found
5. Another question chosen by other players about insects

Websites to Further Explore Invertebrates

The range and recordings of global and regional invertebrates:

<http://www.alerc.org.uk>

<https://www.inaturalist.org/observations>

<https://www.activenaturalist.org.uk/mbb>

Education, research, museums, hobbyist and special interest groups:

The Tanyptera Trust

<http://www.northwestinvertebrates.org.uk>

The Royal Entomological Society

<https://www.royensoc.co.uk>

The British Entomological Society

<http://www.benhs.org.uk>

The Amateur Entomological Society

<https://www.amentsoc.org>

Harper Adams University

<https://www.harper-adams.ac.uk/courses/postgraduate/201004/entomology>

The World Museum

<https://www.liverpoolmuseums.org.uk/wml/>

The Entomological Society of America

<https://www.entsoc.org>

The Dipterist Forum

<http://www.dipteristsforum.org.uk>

The Natural History Museum London

<https://www.nhm.ac.uk>

There is much to explore, some of the different organisations have magazine subscriptions, events and books. I would recommend exploring each one of the websites and start your exploration into the world of invertebrates. If you wish to find out more, there will be a list of the links listed along with lots more on my blog www.wix.com/Ecological-GamesUK.

Acknowledgements

This game took two years to make and wouldn't have been possible without the artist and graphic designer, Kelly-anne and Tom, great thanks to all the work they did over the past 12 months.

Furthermore, I want to thank Tony and Gary at the Tanyptera Trust and World Museum respectively for their taxonomic information advice and Ben at the Mersey Biobank and the twilight regulars for their last minute advice.

Finally, a big thank you for the opportunity to apply for the funding to make this game possible from the British Ecological Society as a valued member and to Chris for his enthusiasm and encouragement.

Stay tuned for more entomology and ecological games.....

Arron Watson – Twitter: @entoarron