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# In the footsteps of Darwin

## Rulebook







Charles Darwin in 1816,  
aged 7.

### About Charles Darwin

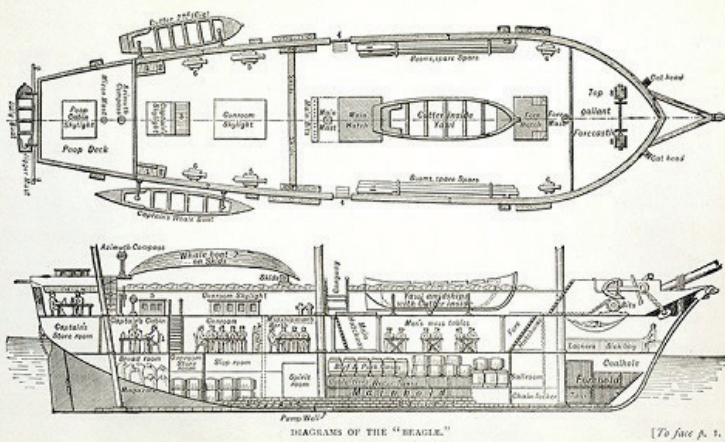
Charles Darwin (1809-1882) was an English naturalist. The fifth of six children, he grew up in a wealthy and educated family.

His grandfather Erasmus Darwin was a famous poet, botanist and zoologist.

Darwin went to the University of Edinburgh Medical School in 1825. He soon showed interest in natural history, particularly about marine invertebrates. Two years later, he joined the Christ's College of Cambridge. His years at Cambridge developed his interest in the living world, fueled by his botany teacher, John Stevens Henslow (1795-1861).

### The Voyage of HMS Beagle

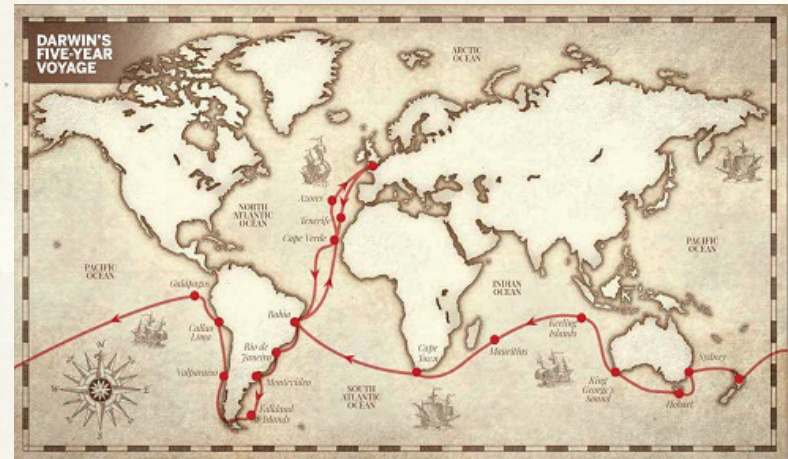
The voyage lasted almost five years, until October, 1836: Cape Verde Islands, South American coast, Galapagos Islands (where Darwin observed 13 different species of "mockingbirds" that would prove essential to elaborate his future theory), Tahiti, New Zealand, Australia,



Plans of H.M.S Beagle.

Tasmania, Cocos Island, Maldives, Mauritius, Saint Helena, Ascension Island, Le Cap, Brazil, back to Cape Verde, Azores, and back home.

Happy to see these landscapes that he dreamed of, and free to go wherever he wanted (most of the time, he would explore the land), Darwin



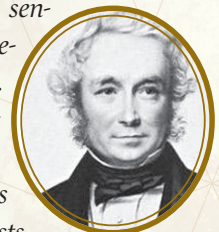
The voyage of the Beagle (1831-1836).

noted all of his geological and zoological observations in a notebook, gathered living organisms or fossils, and methodically maintained a rich collection of specimen, most of them unknown to science at that time.



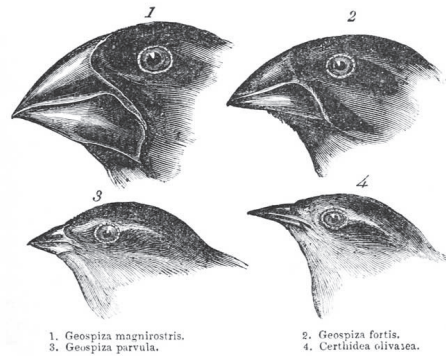
HMS Beagle being hailed by native Fuegians, by Conrad Martens (1833).

Darwin expressed his gratitude to John Henslow by sending detailed letters that precisely described his unprecedented observations, along with wise comments. Henslow published several of these letters without telling Darwin; when Darwin came back, he discovered that he was considered as one of the hopes of the young generation by many British scientists.





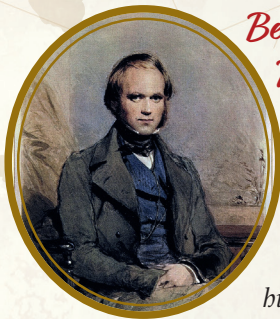
Darwin started to elaborate his natural selection theory by observing the beak of several birds from the Galapagos Islands.



Six editions would be released until 1872, each time with important modifications. Darwin amended entire paragraphs to answer the critics with detailed arguments, to correct some mistakes, and to sharpen his theory. In the end, the sixth edition had 150 pages more than the first edition, and fifteen chapters instead of fourteen.



Patagonian Pampas Cat (*Felis pajeros*), illustration from Darwin's *Voyage of the Beagle*, 1939.



### *Becoming Part of the Scientific Establishment; First Writings*

In 1838, Darwin became Secretary of the Geological Society. One year later, aged 30, he became a member of the Royal Society – always reluctant to become a teacher because of his difficult college years though.

Charles Darwin, end of 1830s, by George Richmond.

The next year, he married his cousin Emma Wedgwood and published *Journal of Researches*, his notes about his expedition on the *Beagle* – the book would become famous under the name *The Voyage of the Beagle*.

### *On the Origin of Species*

In 1842, Darwin decided to settle in a small town in Kent. Despite frequent nausea, vertigos, insomnia and weaknesses (whose cause was never identified), he led a quiet and country-style life there, methodically studying what he brought back from the *Beagle* expedition. Every day, he kept noting his observations, pursuing a habit that was born on the *Beagle* and that he would keep until his death in 1882. In Summer 1858, an event caused his theory of natural selection to gain momentum: as Darwin was working on it, Alfred Wallace, also a naturalist, sent him an essay that described the same idea, prompting immediate joint publication of both their theories. Darwin's book, *On the Origin of Species*, was an immediate success.



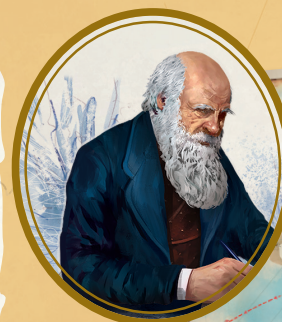
Tangara darwini, illustration from Darwin's *Voyage of the Beagle*, 1939.

### *Follow the trail of Darwin and embark on the Beagle!*



The year is 1856. To complete the writing of *On the Origin of Species*, Darwin needs you! Twenty years after his expedition around the world, he wants to gather new information about animal life, particularly on continents where he barely set foot, such as North America, Asia and part of Africa.

Now too old and too busy writing and taking care of his family, he entrusts you with this mission – after all, you were recommended by his colleagues from the Royal Society of London! Who else than young naturalists eager for discovery could help the renowned scholar to complete the writing of his most famous work?





## Theme and goal of the game

Players are junior naturalists just arrived aboard the Beagle to help Charles Darwin finish his book *On the Origin of Species*. During this journey, you will study animals, carry out cartographic surveys, publish your findings and develop theories. Your goal is to score more Victory Points (VP) than your opponents to determine who contributed the most to the Origin of Species!

## Components

### Before your first game:

Shuffle the 64 Animal tiles and the 5 Character tiles together, then store them in the dedicated area of the box.

### Designers' note:

Not as well-known as birds, mammals and reptiles, arthropods regroup insects, crustaceans, chelicerates (spiders and scorpions) and myriapods (centipedes). They represent half of all known species!

To simplify and diversify, we added an annelid (Giant worm) to the Arthropod category although it does not belong to it.

#### 1 Journey board



• "journey" side

• "appendix" side

#### 5 Naturalist's notebooks



#### 64 Animal tiles



#### 5 Character tiles



#### 16 Publication tokens



#### 15 Compass tokens



#### 28 Theory tiles



#### 10 Guide tokens



#### 1 Darwin token



#### 1 Beagle figure



#### 1 score pad

#### 1 1 cloth bag

#### 1 rulebook

#### 1 appendix booklet

## Setup

1 Place the board, **Journey** side up, at the center of the table, then place the **Beagle** on its starting space.

2 Give a **Naturalist's notebook** to each player, henceforth called a "naturalist" in the rulebook. The last naturalist who traveled by ship takes the **Darwin** token: they will start the game. If no naturalist has ever traveled by ship, choose your favorite way to determine who will play first.

3 Place the **Guide**, **Publication** and **Compass** tokens on the dedicated spaces of the **Journey** board.

4 Take 12 tiles from the box for each naturalist in play, then form several face down piles, that you place next to the **Journey** board. Take another 9 tiles from the box and place them face up on each of the 9 spaces of the **Journey** board (for example, take  $24 + 9 = 33$  tiles in a game with 2 naturalists).

5 Deal a **Theory** tile to each naturalist. They must place it face up on their topmost **Theory** space, at the top right of their notebook. Then, form two face-down **Theory** draw piles and place them on the dedicated spaces of the **Journey** board. Then, draw 3 of them and place them face up on their dedicated spaces.

6 Each naturalist takes a **Guide** token and places it on the dedicated space.









## What's on an Animal tile?

### 1 Class of the animal

Arthropod  Mammal 

Bird , Reptile 

### 2 Name (English and Latin), size and ecosystem of the animal.

America Africa Asia Oceania



### 3 Bonus when you study the animal (either an immediate or an endgame bonus).

### 4 Emblematic animal icon.

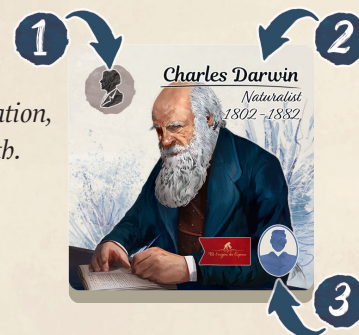


## What's on a Character tile?

### 1 Character icon.

### 2 Character's name, occupation, date of birth, date of death.

### 3 Bonus when you take inspiration from the character.



## How to play

Starting with the naturalist controlling the Darwin token, naturalists take turns in clockwise order. On their turn, a naturalist performs these two steps in order:

### 1 Study an Animal or Take inspiration from a Character.

### 2 Voyage of the Beagle.

The game ends after each naturalist has placed exactly 12 tiles (Animal or Character) on their notebook.

### 1 Study an Animal or Take inspiration from a Character

Choose one of the 3 tiles facing the Beagle and place it onto your Naturalist's notebook. It may be either an animal to study or a character from the Beagle's previous journey who will inspire you.



Example : the Beagle is facing a Coral Snake, an Armadillo girdled lizard and a Japanese crane 1. Anna decides to study the Japanese crane and places it on her notebook. 2



## Study an animal

Take the animal and place it on the space in your notebook matching their ecosystem and their class, then resolve their immediate bonus, if any:

**Discover** : these animals are an important discovery for the scientific community: they will be worth **1**, **2** or **3** VP at the end of the game.



**Example** : Anna studies a Japanese crane, which will earn her **3** at the end of the game if it is still visible.

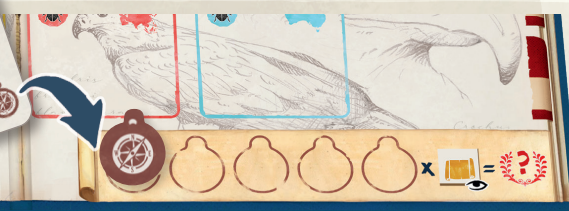
**Chart** : these animals are worth VP at the end of the game depending on the number of **Compasses** you have.



**Example** : Louison studies a Saltwater crocodile, which will earn her 1 VP for each **compass** she has at the end of the game if it is still visible.

**Survey** : immediately take a **Compass** token and place it in the Survey area at the bottom of your notebook. **You may not** have more than 5 of these tokens: should you be to take a 6<sup>th</sup> one, you may study the animal, but you do not take the compass.

**Example** : Anna studies a Keel-billed toucan, which comes with a **Compass** token. She immediately takes the token and places it at the bottom of her notebook.



**Hire a guide** : immediately take a Guide token and place it on an empty Guide space of your notebook. **You may not** have more than 2 of these tokens: should you be to hire a 3<sup>rd</sup> guide, you may study the animal, but you do not hire the guide.

**Example** : Louison studies a Black Mamba and therefore immediately hires a **guide**, which she places on her notebook. She may use them later in the game to perform a special action (**Sail** or **Probe**).



**Emblematic** : immediately take the **Darwin** token from whoever controls it and place it next to your notebook. If you were the one controlling it, nothing happens. At the end of the game, the naturalist controlling the **Darwin** token scores **2**.

**Example** : Louison studies a Moose, which has a **Darwin** icon. Since Anna controls the Darwin token, Louison takes it from her and places it next to her own notebook. It will earn her **2** if she still controls it at the end of the game.





## Take inspiration from a character



If the tile is a Character tile, place it on an available space on the left side of your notebook, then gain its bonus.

**You may not** be inspired by more than 3 characters. Characters' bonuses are detailed on page 12 of this rulebook.

**Example :** Anna takes inspiration from Conrad Martens. She places the tile on her notebook, then resolves its bonus: it counts as 1 **Chart** and allows her to hire a **Guide**.



## 2 Voyage of the Beagle

After placing a tile (Animal or Character) on your notebook, resolve these steps in order:

**A)** Move the Beagle as many spaces forward → (following the arrows) as the distance between Beagle and the tile you just selected (i.e. 1, 2 or 3 spaces).



**B)** Draw a new tile and place it face up on the empty space of the Journey board.





## Special actions

### Use a Guide

At the beginning of your turn, **before** selecting an Animal or Character tile, **you may use a single one** of your **Guides** (by returning the token to the Journey board) to perform one of the following special actions:



**Sail**: move the **Beagle** one space back or forward. Then, play your turn as usual.

**Example**: at the beginning of her turn, Louison uses a Guide to Sail ①, because she wishes to study an Elephant, worth ③ at the end of the game ②. She moves the Beagle one space back ③ and plays her turn: she studies the Elephant, and then moves the Beagle two spaces forward following the arrows ④.



**Probe**: discard the 3 tiles facing the Beagle and place them face down in any order at the bottom of any draw pile: replace them with 3 tiles from any draw pile. Then, play your turn as usual.

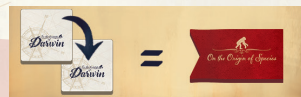


### Exemple:

at the beginning of her turn, Louison uses a **Guide** to Probe ①: she discards the 3 tiles facing the Beagle, returns them to the bottom of any draw pile ② and reveals 3 new tiles ③. Then, she plays her turn as usual: she studies an Emu, then moves the Beagle one space forward following the arrows ④.



## Develop a Theory



When you study an animal from a class and an ecosystem you already studied, place the tile on top of the previous one, then resolve its immediate bonus, if any. The covered tile remains there but any **VP** value or icon on it will now be ignored. If you cover another icon ( , , ), nothing happens: **you do not have to return these elements.**

Then, take a Theory tile among the 3 on display, or from the top of any draw pile. Place this **Theory** on the next available space of your notebook: its **VP** will be checked at the end of the game. You may own both copies of the same **Theory** if you wish to.

Then, if you took a **Theory** from the row, reveal a new one from any draw pile to complete the row.

**Important:** you may not have more than 6 Theories. If you take a 7th one, return one of your choice (possibly the one you just took) to the bottom of any draw pile. Should you need to draw a Theory and the row is empty, nothing happens.

**Important:** you may cover the same animal space of your notebook several times.



**Example:** Anna studies an Imperial eagle and must stack it on top of the Japanese crane she studied earlier, because both animals share the same class and the same ecosystem **1**. Then, she takes a **Theory** tile, that she places on the right side of her notebook **2**.

## Write a Publication



Each time you cover all 4 spaces of a given ecosystem or class (i.e. by completing a column or a row on your notebook), you write a **publication**! Take any **publication** token on the Journey board and place it on the dedicated space at the top left of your notebook. Should you write more **publications** later in the game, simply stack the tokens.

**IMPORTANT:** if you cover the 4 spaces of an ecosystem or a class that you already completed before, you cannot write a **Publication** again that way.



**Exemple:** Louison studies a Giraffe, which causes her to have covered all the Mammals spaces of her notebook **1**: she takes a **Publication** token and places it at the top left of her notebook **2**.





## End of the game

When the last tile from the draw pile is placed onto the Journey board, the game ends. This happens once each naturalist has placed exactly 12 tiles (Animal and/or Character) on their notebook.

Score VP in the following categories:



• **Discoveries** : add up **VP** from your visible discovered animals (VP from covered animals are ignored). If you have been inspired by Robert McCormick, add his **4** to this category.



• **Chart** : multiply the number of Compasses you own by the number of visible icons you own.



• **Publications** : score **5** for each Publication you wrote.



• **Theories** : check your Theories and score their VP (see next page).



• **Token Darwin** : if you control it, had **2** to this category.

Add up these 4 categories: the naturalist with the most VP wins the game. If there is a tie, the naturalist with the most VP in the Theory category wins the game. If there is still a tie, the tied naturalists share the victory.



Example : Anna scores:

- **4 VP for Discoveries**: **3** for the Great white pelican, **1** for the Ostrich.
- **12VP for Chart**: she has 4 visible icons (Okapi, Armadillo girdled lizard, Tsetse fly and Conrad Martens) and 3 in the Survey area of her notebook.
- **10VP for Publications** (she wrote two).
- **12VP for Theories**: **1** per animal from Africa (**6VP**), **1** per Emblematic animal (**4VP** because she developed this Theory twice), and **1** per Reptile (**2VP**).
- **2** because she controls the Darwin token.

Anna's score is 40 VP!

## Achievements

When you win the game, check whether you completed one of the achievements below. If you did, write down your name in the empty box!

Darwinism - Scored <b>50 VP</b> or more.		Observer - Scored <b>20 VP</b> or more in the <b>Discoveries</b> category.	
Mentor - Took inspiration from 3 Characters.		Natural selection - Studied 3 animals from the same class and ecosystem.	
Expert -  Wrote 3 <b>Publications</b> .		Cultural exchange -  Ended the game with <b>2 Guides</b> .	
Theorist -  Developed 6 <b>Theories</b> .		Emblematic -  Had 4 visible <b>Emblematic</b> animals.	
Cartographer -  Collected 5 <b>Compasses</b> .		Diversification - Had <b>1</b> , <b>2</b> , <b>3</b> ,  ,  ,  ,  .	



## Theories

### Chapter 1 – Variation under domestication.



Score **1 VP** for each **Bird** you studied, including those you covered.

### Chapter 2 – Variation under nature.



Score **1 VP** for each **Mammal** you studied, including those you covered.

### Chapter 3 – Struggle for existence.



Score **1 VP** for each **Reptile** you studied, including those you covered.

### Chapter 4 – Natural selection.



Score **1 VP** for each **Arthropod** you studied, including those you covered.

### Chapter 5 – Laws of variation.



Score **1 VP** for each animal from **America** you studied, including those you covered.

### Chapter 6 – Difficulties on theory.



Score **1 VP** for each animal from **Africa** you studied, including those you covered.

### Chapter 7 – Miscellaneous objections to the theory of natural selection.



Score **1 VP** for each animal from **Asia** you studied, including those you covered.

### Chapter 8 – Instinct.



Score **1 VP** for each animal from **Oceania** you studied, including those you covered.

## Characters

### Charles Darwin (1809-1882)



Naturalist. Boarding the Beagle at just 22, he travelled for 5 years around the world on the now famous ship, developing the theory of natural selection, which he published in 1858 under the name *On the Origin of Species*.

Take **1 Theory** tile among the 3 on display or from the top of any draw pile, then Hire a **Guide**.

### Robert FitzRoy (1805-1865)



Ship captain. He was in charge of the H.M.S Beagle's expedition dedicated to the hydrographic exploration of Southern American coasts (1831-1836). He then became governor of New Zealand (1843-1845).

Hire **2 Guides**.

### John Henslow (1795-1861)



Botanist. He was Charles Darwin's teacher at the University of Cambridge and referenced him for the H.M.S. Beagle's expedition. He published Darwin's letters, contributing to his fame.

**Survey** and Hire a **Guide**.

### Chapter 9 – Hybridism.



Score **1 VP** for each animal you studied in the **top-left** quarter of your Naturalist's notebook, including those you covered.

### Chapter 10 – On the imperfection of the geological record.



Score **1 VP** for each animal you studied in the **top-right** quarter of your Naturalist's notebook, including those you covered.

### Chapter 11 – On the geological successions of organic beings.



Score **1 VP** for each animal you studied in the **bottom-left** quarter of your Naturalist's notebook, including those you covered.

### Chapter 12 – Geographical distribution.



Score **1 VP** for each animal you studied in the **bottom-right** quarter of your Naturalist's notebook, including those you covered.

### Chapter 13 – Mutual affinities of organic beings.



Score **1 VP** for each of your **Theories**.

### Chapter 14 – Morphology and embryology.



Score **2 VP** for each visible **Guide** icon on your tiles.

### Chapter 15 - Recapitulation.



Score **2 VP** for each of your **Publications**.

### Chapter 16 - Conclusion.



Score **1 VP** for each visible **Emblematic** animal you studied.



### Conrad Martens (1801-1878)

Painter. Robert FitzRoy, whom he met in 1833 in Montevideo, hired him to replace the artist voyaging on the H.M.S. Beagle, who had fallen ill. When the Beagle stopped over in Australia, Martens decided to stay and live there, which he did until the end of his life.

**Chart** and Hire a **Guide**.



### Robert McCormick (1800-1890)

Doctor. A surgeon working for the English Navy, he officially travelled aboard the Beagle as a naturalist. During his career he took part in other expeditions, including one aiming to find the South pole.

Score **4 VP** at the end of the game. Hire a **Guide**.

**IMPORTANT:** you may never have more than **2 Guide** tokens. Should you be to hire a 3<sup>rd</sup> guide, you may take inspiration from the character, but you do not hire the guide. This rule also applies for your 6<sup>th</sup> compass if you take inspiration from John Henslow.