

University of Prince Edward Island

# A Data-Driven Exploration of Pokemon based on Egg Groups cohorts

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# Acknowledgements

This report was made possible by the fan contributions to the Pokemon Community, which include the following projects:

[The PokeApi Project](#), written by [Paul Hallet](#), is the source of our data. This project is an open source, RESTful API that is “linked to an extensive database detailing everything about the Pokémon main game series”.

[Bulbapedia](#), developed by the [Bulbagarden](#) community, is a wiki-style encyclopaedia of Pokemon information and is currently considered the most extensive community-gathered source of information about the Pokemon franchise in the English Speaking Internet, and perhaps even the Japanese internet.

Pokemon, Pocket Monsters is the intellectual property of [The Pokemon Company International](#), [Game Freak](#), [Creatures, Inc.](#), and [Nintendo](#).

No one in this report is affiliated with The Pokemon Company, Game Freak, Creatures Inc. and Nintendo, and this report is protected under academic and fair use laws and regulations.

Gibson sourced and cleaned up the data. Amaan developed our charts. Nikki crunched the numbers and wrote the spreadsheet.

Our code can be found here:

[https://colab.research.google.com/drive/1ZzntyBzKJlwgDjEG9aLH1SMcR-a6bouC#scrollTo=7Tdiz\\_d9MMmy](https://colab.research.google.com/drive/1ZzntyBzKJlwgDjEG9aLH1SMcR-a6bouC#scrollTo=7Tdiz_d9MMmy)

Our spreadsheet can be found here:

[https://docs.google.com/spreadsheets/d/14HiNQEJ46jPS-yX3sP7zYigjif4byjJKIX-0T6UFk\\_g/edit?usp=sharing](https://docs.google.com/spreadsheets/d/14HiNQEJ46jPS-yX3sP7zYigjif4byjJKIX-0T6UFk_g/edit?usp=sharing)

Charts and tables will be provided in our report.

# Pokemon, the creatures

## What they are

Pokemon are fictional creatures in the Pokemon franchise, which can possess metaphysical powers to manipulate elements and other abstract concepts. As of the release of the 9th Generation of the games, Scarlet and Violet, there are 1015 pokemon currently known in the fictional setting, with implications that there are always more to be discovered. These creatures coexist with humans, animals and plants that we see in the real world, and can often mimic many of the things we see in our daily lives. Many Pokemon come from fantastical origins to downright disturbing ones.

## Typing

Pokemon Types are a classification system developed by Pokemon Researchers and Professors to categorise and study such Pokemon, their powers and how they interact with each other. Each pokemon can have up to 2 typings, which are reflective of their character, setting or powers. Each typing as a cohort has general strengths and weaknesses against other types of Pokemon, also serving as a strategic tool for Pokemon Battles, Utility and Technology. The Pokemon types as of the latest generation of games go as follows:

<b>normal</b>	No major metaphysical abilities
<b>fire</b>	Related or Can manipulate fire
<b>water</b>	Related or Can manipulate water
<b>grass</b>	Related or Can manipulate plantlife
<b>electric</b>	Related or Can manipulate electricity
<b>ice</b>	Related or Can manipulate cold weather/ice
<b>fighting</b>	Excels in fighting
<b>poison</b>	Is poisonous or can develop poisons
<b>ground</b>	Related or Can manipulate the ground
<b>flying</b>	Excels in flying
<b>psychic</b>	Excels in psychic abilities and manipulation
<b>bug</b>	Replaces bugs in an ecosystem
<b>rock</b>	Comprised of stone or Can manipulate stone

<b>ghost</b>	Has no physical form or Uses its surroundings as a form
<b>dark</b>	Products of nightmares and negative/dark energy
<b>dragon</b>	Of Draconic origin or Resembles dragons
<b>steel</b>	Has metallic characteristics
<b>fairy</b>	Products of dreams/fae and positive/light energy.

## Stats

Pokemon is a team-building turn-based role-playing game, and in such games, each creature has a specific stat (short for statistics, common lingo in the gaming world). There are 3 types of stats: Battle Stats, Descriptive Stats and Breeding Stats. This report will only cover certain Battle, Descriptive and Breeding stats as follows:

### Base Battle Stats

Each Pokemon has a series of base battle stats, which are the average stats of the pokemon in question at the first level you can encounter or evolve them. While not covered in the breadth of our report, each base stat has two modifiers, Effort Values and Individual Values, which can add or decrease stats on individual pokemon.

Health	The Health of a Pokemon	1-255
Attack	The Physical Attack Power	1-255
Defense	How much physical damage they can sustain	1-255
Special Attack	The Psychic Attack Power	1-255
Special Defense	How much psychic damage they can sustain	1-255
Speed	How often they can avoid attacks and determines battle order	1-255

## Descriptive Stats

Each pokemon has a number of descriptive stats, which include Weight, Height, Personality, Ability, Gender and Shape. Our report focuses on just Weight, Height and Gender, though originally we were going to cover Shape as well.

Weight	1-9999, in hectograms
Height	1-9999, in decimeters
Gender rate	-1 to 10, in reference to the likelihood of female pokemon, 10 being highest at 100% and 0 being the lowest at 0%. -1 is assigned to Pokemon with no gender.

## Pokemon Breeding and Egg Groups

A core mechanic of the Pokemon franchise is the ability to breed Pokemon to fine-tune specific stats, moves, abilities, and shiny status (Shiny status just being whether or not the pokemon is the franchise equivalent of albino, in different colours from normal. The average base Shiny rate is 1 in 4096).

Each pokemon in order to breed must be of the same Egg Group as its partner. Each Pokemon can have up to 2 egg group classifications, which are reflective of certain properties and qualities of the pokemon in question. Egg groups are not directly referenced in game, however they are in the code of the games and referenced in supplementary materials such as official guides and pokedex books

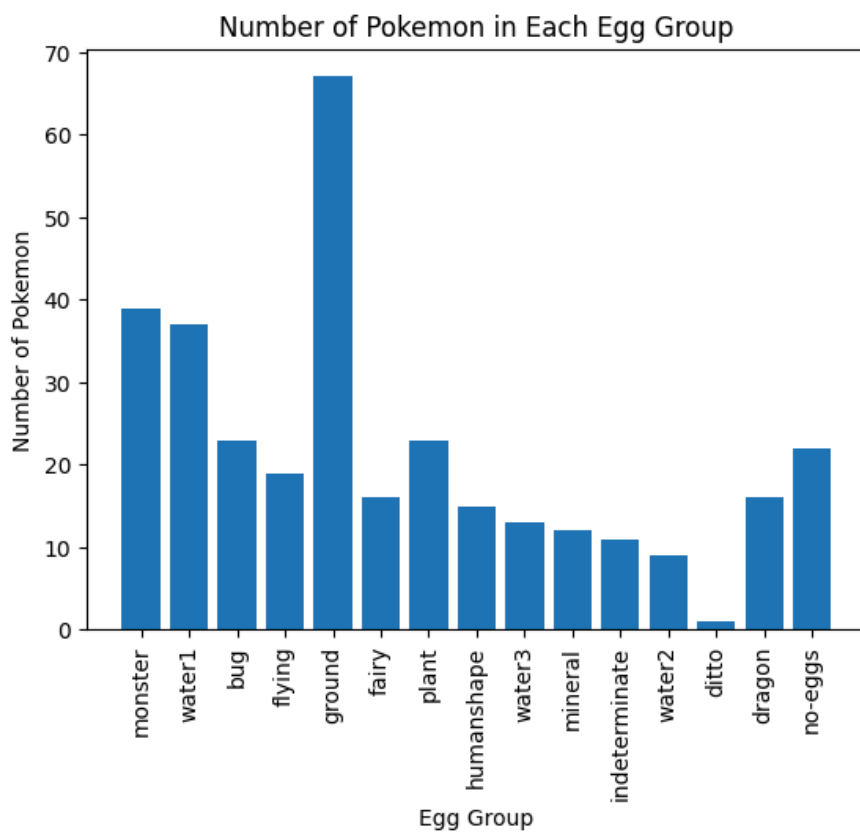
The egg groups are as follows, alongside the number of pokemon that belong in said group, as well as a chart to see the numbers in perspective

Three notes:

1. Ditto is classified as its own egg group, and all egg groups can breed with Ditto except for group no-eggs. Indeterminate grouped pokemon and genderless pokemon can only breed with Ditto
2. No-eggs cannot breed at all, not even with others in their category.
3. No one is quite sure why there are 3 distinct water groups. Yes, it is indeed as confusing as it sounds.

bug	92
ditto	1

dragon	69
fairy	67
flying	73
ground	278
humanshape	70
indeterminate	61
mineral	82
monster	81
no-eggs	142
plant	87
water1	114
water2	34
water3	37



# Motivation

There is not a lot of information about egg groups and how they're divided up. Our motivation was to figure out what the pokemon have in common as well as find the largest, smallest, strongest and weakest of each egg group. A lot of analysis performed on Pokemon has the Pokemon stratified by type, and we decided to flip the script and stratify it by egg group.

Our results are an interesting and different way of exploring Pokemon relationships and characteristics of each egg group and has changed the way we see egg groups and Pokemon classification, for better or worse.

# Data

Using Pokeapi to gather the data, it was only a matter of finding the most efficient way to access the relevant data to our uses, this lead to finding the ideal entry point in the category "Pokemon-Species" rather than just pokemon as this category cuts out alternate forms of pokemon, which for the purposes of this analysis, was irrelevant. Next up was parsing the json data, and pathing our way from "pokemon-species" to just "pokemon", fortunately the varieties section has a list of all the different variants with links to their pages, with 0 being their default form.

With data pathing now done, we can gather the name, gender-rate, and egg groups from pokemon species whilst using it as an additional filter for the dataset at large, and from just the pokemon page we can get height, weight, typing, Attack, Defense, Special Attack, Special Defense, HP, and Speed to make up the remainder of the data set.

Note: shape was supposed to be included here, but due to data discrepancies between gen 9 and gen 1-8, it was opted for being left out since it wanted to break everything.

# Analysis and Visualization

Our analysis was split into two parts, our spreadsheet focused on analysis within egg groups, while our visuals focused on egg group relationships compared to each other.

Our code can be found here:

[https://colab.research.google.com/drive/1ZzntyBzKJlwgDjEG9aLH1SMcR-a6bouC#scrollTo=7Tdiz\\_d9MMmy](https://colab.research.google.com/drive/1ZzntyBzKJlwgDjEG9aLH1SMcR-a6bouC#scrollTo=7Tdiz_d9MMmy)

Our spreadsheet can be found here:

<https://docs.google.com/spreadsheets/d/14HiNQEJ46jPS-yX3sP7zYigjif4byjJKIX-0T6UFkg/edit?usp=sharing>

Our data cleanup and charting was done on Google Collaborate using Python as our primary language. The packages we used include the PokeAPI wrapper [Pokebase](#), Pandas, Matplotlib, Seaborn and Numpy.

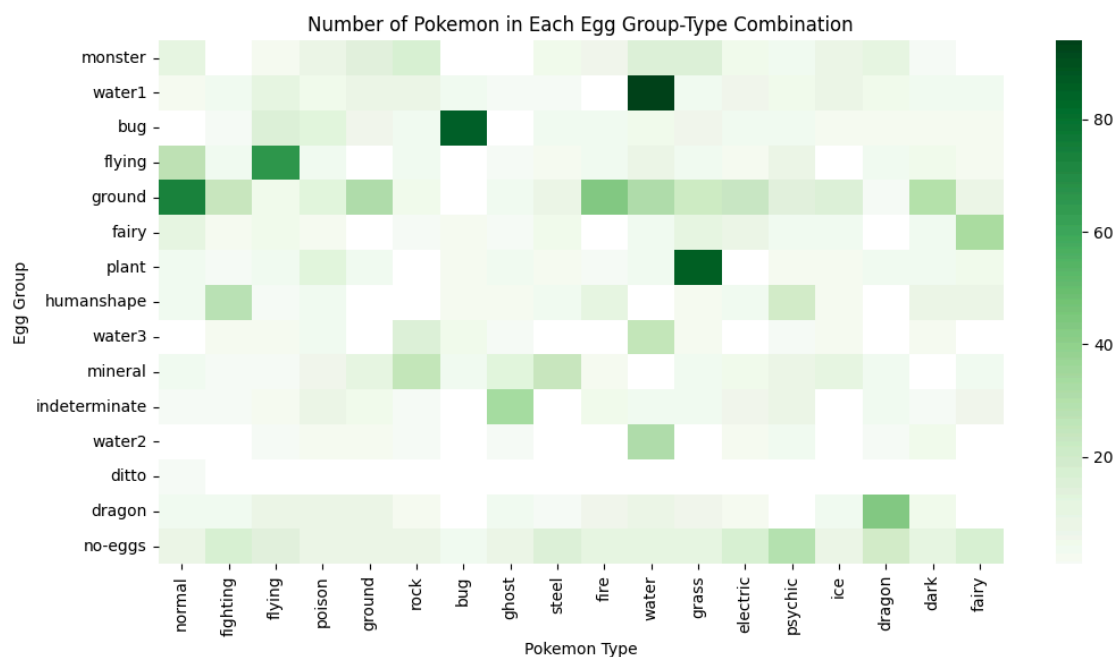
Our spreadsheets were done using Google Sheets and extensive conditional formatting and statistical formulas included in Google Sheets.

## Results

### Between Egg Groups

We found out that Pokemon Type and Egg Group can correlate significantly for certain types such as Normal with field, Water with Water 1, Grass with Plant, Fighting with Humanshape and Bug with Bug.

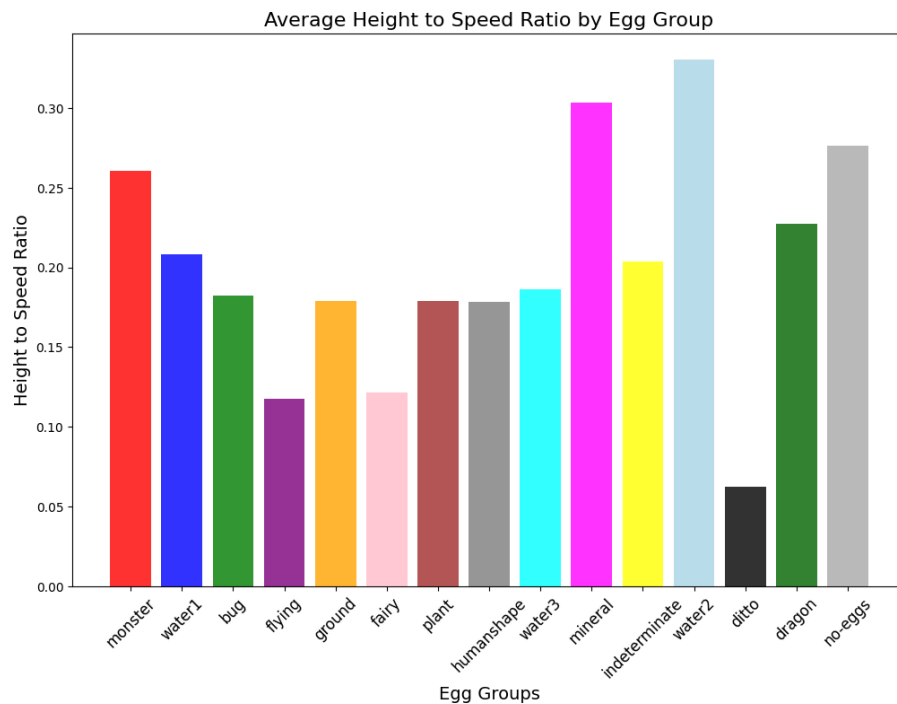
We also noticed that a disproportionate number of psychic Pokemon are represented in the no-eggs group, this is in part due to Psychic being one of the most popular types for Legendary and Mythical Pokemon, which cannot breed in game (with the sole exception of Manaphy and Phione)



We also looked at the average height-to-speed ratio of pokemon in the egg group. Height is commonly thought as a contributor to the base speed stats of a pokemon, alongside weight.

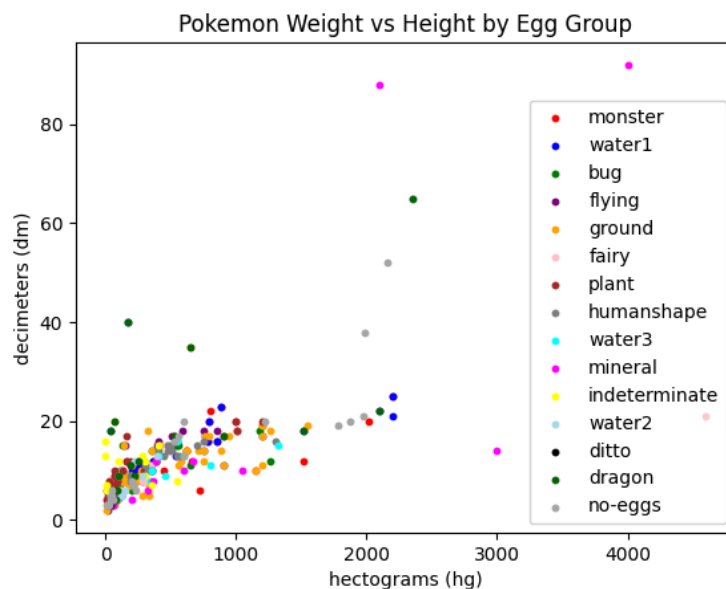
We noticed that groups such as Mineral and Water2 have significantly large height to speed ratios, which is accurate and reflective of the type of pokemon in such groups. Pokemon in the Mineral and Water2 group are quite short yet considerably more dense.





We similarly looked at the distribution of Weight vs. Height per Egg Group, and it shows that a great majority of Pokemon in general fall within the range of 0-1000 hectograms, or 0-100kg and within

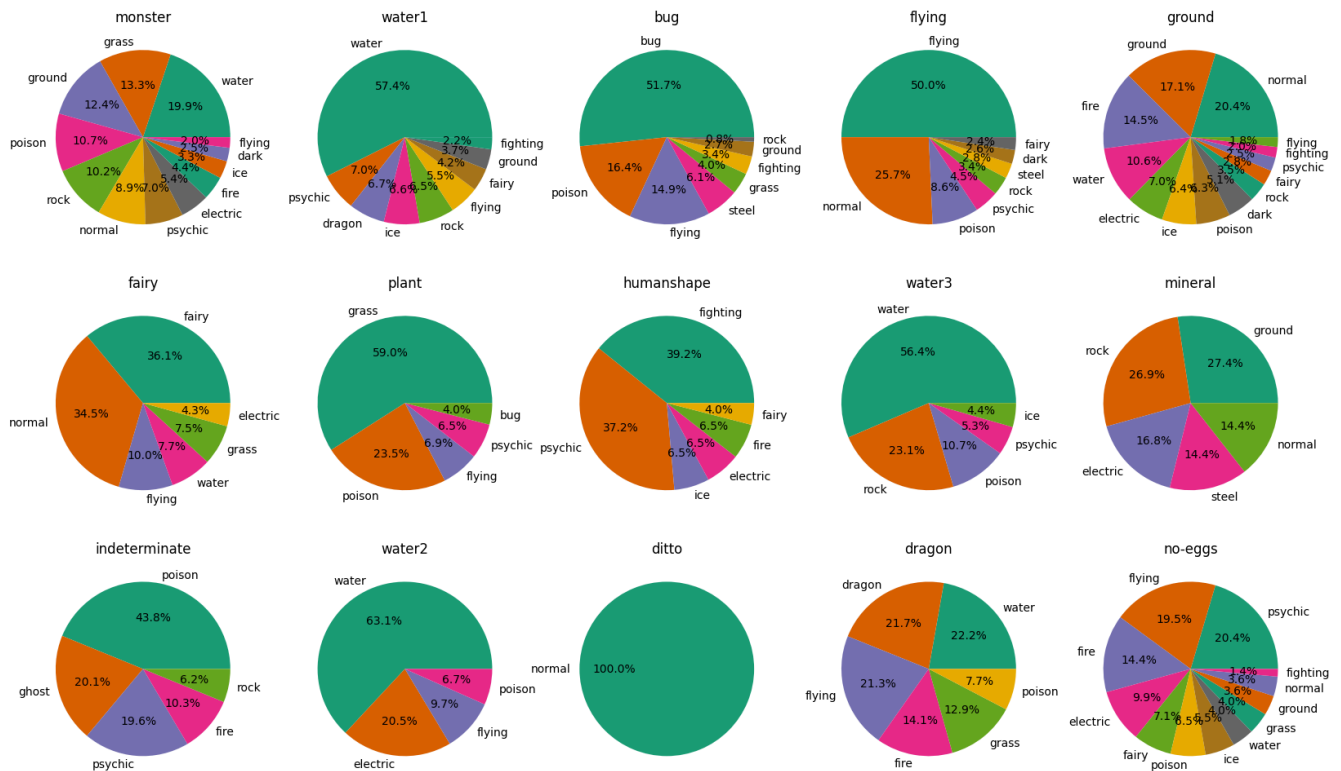
We noticed a number of outliers in a few egg groups, mineral and bug in particular having some of the largest and tallest pokemon in their group



We have also looked at the average Health for each type in each egg group, and some very surprising relationships showed up. For example, within the Fairy egg group, normal type pokemon were overrepresented on average compared to the aptly named Fairy type pokemon.

In Human-shape, despite fighting type being overrepresented in general, Psychic type pokemon also had a significant HP stats on average. Coincidentally, through these charts we also noticed that Monster, Ground and No-Eggs groups are the groups with the most types within them

Average HP of Each Pokemon Type in Every Egg Group



## Within Egg Groups

Here are some of the conclusions we have within Egg Groups, alongside the tables, excluding Ditto because the Pokemon Ditto is the only member in its group. Pokemon with tied stats for highest and lowest are shown at the bottom of the table with the category they tie in.

### Bug

The Bug Egg Group has a perfectly even 50/50 split between Pokemon that are 50% likely to be female and 50% likely to be male. The stat difference between the genders is very small, and this group has no genderless pokemon. The most commonly seen stats range between 40-80, with a cumulative stat average of 50-60.

The smallest Pokemon in this category is Cutiefly, with a mere 0.10m in height, and is also the lightest, weighing just 0.20kg. The heaviest Pokemon in this category is Scolipede, weighing at a whopping 200.50kg, and the tallest is Centiskorch, coming at 3m long.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	0	0	0	0	
fire	2	2	60.5	1.35	
water	2	3	43	1	
grass	0	6	0	0	
electric	0	4	0	0	
ice	2	0	0	0	
fighting	0	1	0	0	
poison	2	11	36.75	1.027272727	
ground	5	1	43.92	0.5	
flying	0	15	0	0	
psychic	0	3	0	0	
bug	78	7	27.44230769	1.171428571	
rock	0	4	0	0	
ghost	0	0	0	0	
dark	0	2	0	0	
dragon	0	2	0	0	
steel	0	4	0	0	
fairy	0	2	0	0	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	56.43	60.00	70	5,135.00	
Attack	65.34	63.00	35	5,946.00	
Defense	69.60	60.00	50	6,334.00	
Special Attack	54.99	50.00	40	5,004.00	
Special Defense	64.22	60.00	80	5,844.00	
Speed	59.55	55.00	65	5,419.00	
		Gender Spread			

Count		Stats	Average		
		Genderless Pokemon			
0.00		Health	0		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
88		Health	56.1363 6364		
		Attack	65.4545 4545		
		Defense	69		
		Special Attack	54.2272 7273		
		Special Defense	63.0909 0909		
		Speed	59.75		
		50%+ Female Pokemon			
88		Health	56.4772 7273		
		Attack	65.3295 4545		
		Defense	70.0795 4545		
		Special Attack	54.9204 5455		
		Special Defense	64.3977 2727		
		Speed	59.0681 8182		
		Pokemon Awards			

Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Scolipede	bug	poison	200.50	
Height	Centiskorch	fire	bug	3.00	
Health	Centiskorch	fire	bug	100.00	
Attack	Kleavor	bug	rock	135.00	
Defense	Shuckle	bug	rock	230.00	
Special Attack	Vikavolt	bug	electric	145.00	
Special Defense	Shuckle	bug	rock	230.00	
Speed	Ninjask	bug	flying	160.00	
		Lowest			
Weight	Cutiefly	bug	fairy	0.20	
Height	Cutiefly	bug	fairy	0.10	
Health	Shuckle	bug	rock	20.00	
Attack	Shuckle	bug	rock	10.00	
Defense	Bipbug	bug		20.00	
Special Attack	Shuckle	bug	rock	10.00	
Special Defense	Caterpie	bug		20.00	
Speed	Shuckle	bug	rock	5.00	
Tied Pokemon					
Min Sp. Defense	Weedle	bug	poison		

## Dragon

The Dragon Egg group has slightly more male pokemon on average than female, and no genderless Pokemon. The stat difference between the genders is surprisingly very small as well. The most commonly seen stats in this group range from 40-85, with 40 Health being the most common lowest stat in this group, followed by 50 Special Defense. The group has a cumulative stat average between 63-80.

The smallest and lightest pokemon in this category is Applin, weighing 0.5kg and being only 0.2m tall. The heaviest Pokemon in this category is Tyranatrum, at 270kg, with the tallest being Gyrados, at 6.5m long.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	2	2	93.1	0.75	
fire	4	2	82.5	0.9	
water	7	1	85.62857143	0.5	
grass	6	0	0	0	
electric	2	0	0	0	
ice	0	3	0	0	
fighting	0	4	0	0	
poison	7	0	0	0	
ground	5	3	37.08	1.333333333	
flying	2	6	46.5	2.233333333	
psychic	0	0	0	0	
bug	0	0	0	0	
rock	2	0	0	0	
ghost	0	3	0	0	
dark	5	0	0	0	
dragon	26	17	62.35769231	1.394117647	
steel	1	0	0	0	
fairy	0	0	0	0	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	63.80	65.00	45	4,402.00	
Attack	80.09	75.00	75	5,526.00	
Defense	70.83	70.00	80	4,887.00	
Special Attack	69.61	65.00	60	4,803.00	

Special Defense	68.22	65.00	50	4,707.00	
Speed	70.00	70.00	80	4,830.00	
		Gender Spread			
Count		Stats	Average		
		Genderless Pokemon			
0.00		Health	0		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
68		Health	63.73529412		
		Attack	80.32352941		
		Defense	70.98529412		
		Special Attack	69		
		Special Defense	68.33823529		
		Speed	69.30882353		
		50%+ Female Pokemon			
60		Health	64.65		
		Attack	81.28333333		
		Defense	72.11666667		
		Special Attack	68.56666667		
		Special Defense	69.3		
		Speed	68.4		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	

		Highest			
Weight	Tyrantrum	rock	dragon	270	
Height	Gyrados	water	flying	6.5	
Health	Baxcalibur	dragon	ice	115.00	
Attack	Haxorus	dragon		147.00	
Defense	Turtonator	fire	dragon	135.00	
Special Attack	Drampa	normal	dragon	135.00	
Special Defense	Goodra	dragon		150.00	
Speed	Dragapult	dragon	ghost	142.00	
		Lowest			
Weight	Applin	grass	dragon	0.5	
Height	Applin	grass	dragon	0.2	
Health	Magikarp	water		20.00	
Attack	Magikarp	water		10.00	
Defense	Feebas	water		20.00	
Special Attack	Feebas	water		10.00	
Special Defense	Magikarp	water		20.00	
Speed	Trapinch	ground		10.00	
Tied Pokemon					
Min. Health	Feebas	water			

## Fairy

The fairy egg group has a significantly higher rate of female Pokemon than male, with 6 genderless pokemon in the category as well. The females in this group are more likely to be tanky pokemon with a lot of HP, but they tend to be slower on average than their male counterparts. The most commonly seen stats range from 50-60, with a cumulative stat average going from 60-75.

The smallest and lightest pokemon in this group is Flabebe, weighing just 0.1kg and measuring at just 0.1m. The heaviest Pokemon in this category is Glalie at 265.5kg, and the tallest is Failinks, at 3m long.



		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	10	1	17.84	0.9	
fire	0	0	0	0	
water	4	0	0	0	
grass	11	0	0	0	
electric	8	0	0	0	
ice	3	0	0	0	
fighting	1	1	62	1.2	
poison	0	2	0	0	
ground	0	0	0	0	
flying	0	5	0	0	
psychic	4	0	0	0	
bug	2	0	0	0	
rock	1	0	0	0	
ghost	0	1	0	0	
dark	3	1	26.33333333 3	0.3	
dragon	0	0	0	0	
steel	1	4	11.5	0.525	
fairy	18	15	20.12777777 8	0.66	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	72.00	61.00	60	4,752.00	
Attack	60.23	55.00	45	3,975.00	
Defense	61.59	60.00	45	4,065.00	
Special Attack	68.88	64.00	60	4,546.00	
Special Defense	74.83	73.00	50	4,939.00	
Speed	67.30	65.50	50	4,442.00	
		Gender Spread			

Count		Stats	Average		
		Genderless Pokemon			
6.00		Health	69.83333333		
		Attack	3		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
38		Health	63.8421052		
		Attack	60.5789473		
		Defense	62.1842105		
		Special Attack	69.4736842		
		Special Defense	71.2105263		
		Speed	72.2894736		
		50%+ Female Pokemon			
55		Health	72.5090909		
		Attack	58.2727272		
		Defense	58.1818181		
		Special Attack	67.5636363		
		Special Defense	73.4363636		
		Speed	66.3818181		
		Pokemon Awards			

Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Glailie	ice		256.5	
Height	Falinks	fighting		3	
Health	Blissey	normal		255.00	
Attack	Breloom	grass	fighting	130.00	
Defense	Carbink	rock	fairy	150.00	
Special Attack	Hatterene	psychic	fairy	136.00	
Special Defense	Florges	fairy		154.00	
Speed	Ribombee	bug	fairy	124.00	
		Lowest			
Weight	Flabebe	fairy		0.1	
Height	Flabebe	fairy		0.1	
Health	Pikachu	electric		35.00	
Attack	Chansey	normal		5.00	
Defense	Chansey	normal		5.00	
Special Attack	Marill	water	fairy	20.00	
Special Defense	Jigglypuff	normal	fairy	25.00	
Speed	Jigglypuff	normal	fairy	20.00	
Tied Pokemon					
Min Height	Cutiefly	bug	fairy		
Min Hp	Hoppip	grass	flying		

## Flying

Pokemon in the Flying Egg Group tend to be more male on Average than female, with zero genderless pokemon in this egg group. The most commonly seen stats range from 40-85, with a cumulative stat average between 60-80. There are no significant stat differences between the genders. Flying also has the most overlapping pokemon for Lowest stats, overlapping in almost every stat except speed.

The lightest pokemon in this group is Swablu at 1.2kg, and the shortest being Natu, at 0.2m. The heaviest pokemon is Sirfetch'd at 117 kg, with the tallest being Corviknight at 2.2m in height.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	27	0	0	0	
fire	3	0	0	0	
water	7	1	22.38571429	0.8	
grass	3	0	0	0	
electric	2	0	0	0	
ice	0	0	0	0	
fighting	2	2	69.25	1.7	
poison	3	0	0	0	
ground	0	0	0	0	
flying	8	58	35.4625	0.8913793103	
psychic	7	0	0	0	
bug	0	0	0	0	
rock	3	0	0	0	
ghost	0	1	0	0	
dark	4	1	19.475	1.5	
dragon	1	2	20.6	1	
steel	1	1	50.5	2.2	
fairy	2	0	0	0	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	65.88	67.00	40	4,809.00	
Attack	75.05	75.00	85	5,479.00	
Defense	61.32	60.00	55	4,476.00	
Special Attack	63.60	60.00	50	4,643.00	
Special Defense	59.99	60.00	50	4,379.00	
Speed	79.70	75.00	70	5,818.00	
		Gender Spread			
Count		Stats	Average		

		Genderless Pokemon			
0.00		Health	0		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
70		Health	65.05714286		
		Attack	75.55714286		
		Defense	60.37142857		
		Special Attack	63.5		
		Special Defense	59.27142857		
		Speed	79.78571429		
		50%+ Female Pokemon			
60		Health	64.25		
		Attack	71.98333333		
		Defense	60.01666667		
		Special Attack	61.38333333		
		Special Defense	57.48333333		
		Speed	81.4		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Sirfetched	fighting		117	
Height	Corviknight	flying	steel	2.2	
Health	Mandibuzz	dark	flying	110.00	
Attack	Archeops	rock	flying	140.00	
Defense	Skarmory	steel	flying	140.00	
Special Attack	Togekiss	fairy	flying	120.00	

Special Defense	Togekiss	fairy	flying	115.00	
Speed	Aerodactyl	rock	flying	130.00	
		Lowest			
Weight	Swablu	normal	flying	1.2	
Height	Natu	psychic	flying	0.2	
Health	Fittle	psychic		30.00	
Attack	HootHoot	normal	flying	30.00	
Defense	Spearow	normal	flying	30.00	
Special Attack	Zubat	poison	flying	30.00	
Special Defense	Tailow	normal	flying	30.00	
Speed	Togetic	fairy	flying	40.00	
Tied Pokemon					
Max Speed	Crobat	poison	flying		
Min Weight	Pikipek	normal	flying		
Min Height	Rokidee	flying			
Min Height	Fittle	psychic			
Min Attack	Wingull	water	flying		
Min Attack	Noibat	flying	dragon		
Min Defense	Hoothoot	normal	flying		
Min Defense	Tailow	normal	flying		
Min Defense	Wingull	water	flying		
Min Defense	Starly	normal	flying		
Min Defense	Pikipek	normal	flying		
Min Defense	Fittle	psychic			
Min Special Atk	Tailow	normal	flying		
Min Special Atk	Starly	normal	flying		
Min Special Atk	Pikipek	normal	flying		
Min Special Def	Wingull	water	flying		
Min Special Def	Starly	normal	flying		
Min Special Def	Pidove	normal	flying		
Min Special Def	Pikipek	normal	flying		

Min Special Def	Fittle	psychic			
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## Ground

Ground is the largest egg group in the games, comprising almost 1/3 of the entire Pokemon Roster. The pokemon in this group cover basically every type. There are significantly more males than females in this group, with only 2 genderless pokemon. There is very little difference between the genders, with the only exception being the male pokemon tend to have a higher Special Attack Stat on average. The most commonly seen stats range from 70-100, with Attack being the highest at 100. The cumulative average stats range from 60-80.

The lightest pokemon in this group is Shroodle, at 0.7kg, and the shortest being Diggle, being only 0.2m tall!. The heaviest pokemon is Mudsdale, at 920 kg, somehow heavier than the tallest pokemon, Wailord, who measures 14.5m long.

It is also interesting to note that every Eeveelution with the exception of Flareon, Vaporeon and Leafeon are contenders for max stats for Stats such as Special Attack and Special Defense.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	67	7	36.29253731	1.228571429	
fire	41	2	50.44634146	1	
water	27	4	57.03703704	1.075	
grass	20	2	32.585	1.25	
electric	23	0	0	0	
ice	13	3	136.5692308	1.233333333	
fighting	11	13	55.66363636	1.130769231	
poison	12	1	44.16666667	1.3	
ground	21	10	127.7761905	1.26	
flying	0	5	0	0	
psychic	9	5	26.33333333	1.9	
bug	0	0	0	0	
rock	2	3	17.1	1.766666667	
ghost	2	2	25	1.4	
dark	19	11	29.85263158	1.145454545	

dragon	1	0	0	0	
steel	5	4	219.9	0.975	
fairy	5	3	21.16	0.8666666667	
		<b>Stats Spread</b>			
<b>Stat</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Total</b>	
Health	70.91	67.00	70	19,712.00	
Attack	79.43	76.00	100	22,082.00	
Defense	63.90	60.00	60	17,765.00	
Special Attack	63.59	60.00	60	17,677.00	
Special Defense	62.01	60.00	60	17,238.00	
Speed	69.97	65.00	65	19,452.00	
		<b>Gender Spread</b>			
<b>Count</b>		<b>Stats</b>	<b>Average</b>		
		<b>Genderless Pokemon</b>			
2.00		Health	62		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		<b>50%+ Male Pokemon</b>			
262		Health	71.21755725		
		Attack	80.16412214		
		Defense	64.14885496		
		Special Attack	64.03816794		
		Special Defense	62.35496183		
		Speed	69.38931298		
		<b>50%+ Female Pokemon</b>			
203		Health	71.95566502		
		Attack	80.27586207		
		Defense	63.39901478		
		Special Attack	58.36453202		



		Special Defense	60.31034483		
		Speed	68.31034483		
		<b>Pokemon Awards</b>			
<b>Stat</b>	<b>Name</b>	<b>Type Primary</b>	<b>Type Secondary</b>	<b>Stat Value</b>	
		<b>Highest</b>			
Weight	Mudsdale	ground		920	
Height	Wailord	water		14.5	
Health	Wailord	water		170.00	
Attack	Slaking	normal		160.00	
Defense	Orthoworm	steel		145.00	
Special Attack	Espeon	psychic		130.00	
Special Defense	Umbreon	dark		130.00	
Speed	Jolteon	electric		130.00	
		<b>Lowest</b>			
Weight	Shroodle	poison	normal	0.7	
Height	Digglet	ground		0.2	
Health	Digglet	ground		10.00	
Attack	Pawmi	electric		20.00	
Defense	Smeargle	normal		20.00	
Special Attack	Darumaka	fire		15.00	
Special Defense	Whismur	normal		23.00	
Speed	Wooper	water	ground	15.00	
Tied Pokemon					
Max health	Cetitan	ice			
Max Special Atk	Glaceon	ice			
Max Special Def	Sylveon	fairy			
Min Height	Dedenne	electric	fairy		
Min Height	Shroodle	poison	normal		

## Humanshape

Male Pokemon in the Humanshape group vastly outnumber female pokemon, with some significant stats differences and no genderless pokemon. Males in this group tend to be significantly physically stronger and faster, with the females having more Special Attack than their male counterparts. The most commonly seen stats range from 50-85, with a cumulative stat average between 60-85.

The lightest pokemon in this group with Clobbpus at just 4kg, with the shortest being Scorbunny, at an adorable 0.3m. The heaviest and tallest pokemon in this group is Hariyama, weighing 253.8kg and being 2.3m tall.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	3	0	0	0	
fire	11	0	0	0	
water	0	0	0	0	
grass	2	0	0	0	
electric	3	0	0	0	
ice	2	0	0	0	
fighting	23	5	57.16956522	1.14	
poison	2	1	33.7	1.6	
ground	0	0	0	0	
flying	0	1	0	0	
psychic	15	5	35	1.26	
bug	2	0	0	0	
rock	0	0	0	0	
ghost	0	2	0	0	
dark	7	2	41.45714286	1.7	
dragon	0	0	0	0	
steel	0	4	0	0	
fairy	0	7	0	0	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	66.04	65.00	65	4,623.00	
Attack	82.23	81.00	60	5,756.00	

Defense	63.29	65.00	75	4,430.00	
Special Attack	70.63	65.00	65	4,944.00	
Special Defense	71.44	70.00	85	5,001.00	
Speed	68.33	68.00	50	4,783.00	
		Gender Spread			
Count		Stats	Average		
		Genderless Pokemon			
0.00		Health	0		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
65		Health	66.43076923		
		Attack	85.06153846		
		Defense	63.15384615		
		Special Attack	69.70769231		
		Special Defense	70.16923077		
		Speed	68.27692308		
		50%+ Female Pokemon			
38		Health	62.36842105		
		Attack	74.97368421		
		Defense	65.47368421		
		Special Attack	74.26315789		
		Special Defense	72.07894737		
		Speed	64		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	

		<b>Highest</b>			
Weight	Hariyama	fighting		253.8	
Height	Hariyama	fighting		2.3	
Health	Hariyama	fighting		144.00	
Attack	Hitmonlee	fighting		140.00	
Defense	Kingambit	dark	steel	120.00	
Special Attack	Alakazam	psychic		135.00	
Special Defense	Mr. Mime	psychic	fairy	120.00	
Speed	Alakazam	psychic		120.00	
		<b>Lowest</b>			
Weight	Clobbpus	fighting		4	
Height	Scorbunny	fire		0.3	
Health	Abra	psychic		25.00	
Attack	Abra	psychic		20.00	
Defense	Abra	psychic		15.00	
Special Attack	Makuhita	fighting		20.00	
Special Defense	Makuhita	fighting		30.00	
Speed	Hariyama	fighting		25.00	
Tied Pokemon					
Max Atk	Hariyama	fighting			
Max Atk	Grimmasna rl	dark	fairy		

## Indeterminate

Pokemon in this group are surprisingly evenly spread between male and female, with only 3 genderless pokemon. This is strangely hilarious because pokemon in this group have no real consistent shape and are for the most part, blobs. There are no significant differences between male and female pokemon in this group in terms of stat distribution. The most commonly seen stats range from 30 to a whopping 105, 30 speed and 105 special defense, with cumulative stat averages between 55-80. Pokemon in this group are notoriously robust against special attacks but are miserably slow, which makes sense given they're largely blobs.

The lightest Pokemon is Gastly at a whopping 0.1kg, being practically just gas with eyes and a mouth. The shortest pokemon is Sinistea, who is 0.1m, capable of fitting in teacups. The heaviest pokemon is Palossand at 250kg of pure sand, and the tallest is Dragapult, at 3m.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	1	0	0	0	
fire	2	3	45	0.6333333333	
water	4	0	0	0	
grass	0	4	0	0	
electric	5	1	20.82	0.7	
ice	0	0	0	0	
fighting	0	1	0	0	
poison	6	3	26.8	1.466666667	
ground	2	3	38.8	0.9	
flying	0	2	0	0	
psychic	9	0	0	0	
bug	0	0	0	0	
rock	0	1	0	0	
ghost	27	7	32.68518519	1.457142857	
dark	0	1	0	0	
dragon	3	0	0	0	
steel	0	0	0	0	
fairy	2	4	0.4	0.75	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	64.98	60.00	60	3,964.00	
Attack	65.66	65.00	50	4,005.00	
Defense	70.87	68.00	50	4,323.00	
Special Attack	78.00	73.00	65	4,758.00	
Special Defense	74.31	75.00	105	4,533.00	
Speed	54.15	50.00	30	3,303.00	
		Gender Spread			
Count		Stats	Average		

		Genderless Pokemon			
3.00		Health	50		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
56		Health	66.14285714		
		Attack	66.875		
		Defense	71.80357143		
		Special Attack	76.69642857		
		Special Defense	73.32142857		
		Speed	53.46428571		
		50%+ Female Pokemon			
57		Health	65.71929825		
		Attack	65.26315789		
		Defense	71.42105263		
		Special Attack	77.01754386		
		Special Defense	73.21052632		
		Speed	52.84210526		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Palosand	ghost	ground	250	
Height	Dragapult	dragon	ghost	3	
Health	Wobuffet	psychic		190.00	
Attack	Gallade	psychic	fighting	125.00	
Defense	Cofragigus	ghost		145.00	
Special Attack	Chandelure	ghost	fire	145.00	
Special Defense	Dusknoir	ghost		135.00	

Speed	Dragapult	dragon	ghost	142.00	
		Lowest			
Weight	Ghastly	ghost	poison	0.1	
Height	Sinistea	ghost		0.1	
Health	Duskull	ghost		20.00	
Attack	Ralts	psychic	fairy	25.00	
Defense	Ralts	psychic	fairy	25.00	
Special Attack	Duskull	ghost		30.00	
Special Defense	Dreepy	dragon	ghost	30.00	
Speed	Sandyghost	ghost	ground	15.00	
Tied Pokemon					
Max Def	Runerigus	ground	ghost		
Min Weight	Haunter	ghost	poison		
Min Speed	Pincurchin	electric			

## Mineral

Pokemon in the mineral group are surprisingly even between male and female, with 30 genderless pokemon in the category as well. There are no real stat disparities between the genders either. The most commonly seen stats range between 30-100. Similar to Indeterminate, these pokemon are extremely robust, at the cost of being brutally slow. The cumulative stat average is between 55-95.

The lightest and shortest pokemon in this range is Sinistea at 0.2kg in weight and 0.1m in height. The heaviest pokemon is Copperajah at 650kg, with Steelix being the tallest at a whopping 9.2m.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	3	0	0	0	
fire	0	2	0	0	
water	0	0	0	0	
grass	2	1	64.4	3.9	
electric	5	0	0	0	
ice	9	3	128.5111111	1.133333333	

fighting	1	0	0	0	
poison	2	4	69.15	1.25	
ground	5	5	123.62	4.16	
flying	0	1	0	0	
psychic	0	9	0	0	
bug	3	0	0	0	
rock	23	2	138.7913043	0.85	
ghost	5	8	57.72	1.35	
dark	0	0	0	0	
dragon	3	1	85.66666667	1.8	
steel	18	6	147.5388889	0.9166666667	
fairy	2	2	12.9	0.25	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	63.25	60.00	60	5,123.00	
Attack	76.31	75.00	80	6,181.00	
Defense	94.37	90.00	100	7,644.00	
Special Attack	62.53	55.00	55	5,065.00	
Special Defense	72.68	70.00	65	5,887.00	
Speed	53.26	50.00	30	4,314.00	
		Gender Spread			
Count		Stats	Average		
		Genderless Pokemon			
30.00		Health	59.93333333		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
50		Health	65.1		
		Attack	79.48		
		Defense	101.14		



		Special Attack	55.16		
		Special Defense	67.14		
		Speed	47.26		
		50%+ Female Pokemon			
51		Health	65.19607843		
		Attack	79.49019608		
		Defense	100.5294118		
		Special Attack	55.64705882		
		Special Defense	67.19607843		
		Speed	48.49019608		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Copperajah	steel		650	
Height	Stelilx	steel	ground	9.2	
Health	Copperajah	steel		122.00	
Attack	Baxcalibur	dragon	ice	145.00	
Defense	Stelilx	steel	ground	200.00	
Special Attack	Porygon-Z	normal		135.00	
Special Defense	Probopass	rock	steel	150.00	
Speed	Electrode	electric		150.00	
		Lowest			
Weight	Sinistea	ghost		0.2	
Height	Sinistea	ghost		0.1	
Health	Shedinja	bug	ghost	1.00	
Attack	Bronzor	steel	psychic	24.00	
Defense	Glimmet	rock	poison	42.00	
Special Attack	Stonjourner	rock		20.00	
Special Defense	Stonjourner	rock		20.00	
Speed	Ferroseed	grass	steel	10.00	
Tied Pokemon					

Max Sp Defense	Carbink	rock	fairy		
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## Monster

The monster egg group is composed of what we commonly consider as the quintessential pokemon creatures. This group almost doubles in male pokemon, however there are no significant stat differences other than females having on average more health. There are no genderless pokemon in this group. The most commonly seen stats range from 30-85, with 30 speed and 40 Special Attack but 85 Attack. Pokemon in this group are quite weak to psychic attacks but are incredibly robust against physical attacks, and are reliable damage dealing pokemon. The cumulative stat average ranges between 55-80.

The lightest pokemon in this category is Salandit at 4.8kg, and the shortest being Chewtle, at an adorable 0.3m. The heaviest pokemon is Avalugg, at a whopping 505kg, with Drampa being the longest, at 3m.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	8	2	133.9125	0.75	
fire	4	2	82.5	0.9	
water	15	0	0	0	
grass	15	0	0	0	
electric	5	0	0	0	
ice	2	5	302.25	1.94	
fighting	0	0	0	0	
poison	6	3	20.75	1.233333333	
ground	5	9	113.86	1.288888889	
flying	0	2	0	0	
psychic	0	3	0	0	
bug	0	0	0	0	
rock	11	7	119.3363636	1.385714286	
ghost	0	0	0	0	
dark	0	1	0	0	
dragon	7	4	67.14285714	2.075	
steel	3	2	180	0.9	
fairy	0	0	0	0	

		<b>Stats Spread</b>			
<b>Stat</b>	<b>Mean</b>	<b>Median</b>	<b>Mode</b>	<b>Total</b>	
Health	73.07	70.00	60	5,919.00	
Attack	80.44	75.00	85	6,516.00	
Defense	78.31	75.00	65	6,343.00	
Special Attack	65.73	62.00	40	5,324.00	
Special Defense	67.21	65.00	50	5,444.00	
Speed	55.65	50.00	30	4,508.00	
		<b>Gender Spread</b>			
<b>Count</b>		<b>Stats</b>	<b>Average</b>		
		<b>Genderless Pokemon</b>			
0.00		Health	0		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		<b>50%+ Male Pokemon</b>			
78		Health	72.96153846		
		Attack	80.8974359		
		Defense	78.85897436		
		Special Attack	65.80769231		
		Special Defense	67.48717949		
		Speed	54.61538462		
		<b>50%+ Female Pokemon</b>			
44		Health	77.20454545		
		Attack	82.84090909		
		Defense	82.79545455		
		Special Attack	64.72727273		
		Special Defense	63.77272727		
		Speed	51.61363636		

		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Avalugg	ice		505	
Height	Drampa	normal	dragon	3	
Health	Snorlax	normal		160.00	
Attack	Rampardos	rock		165.00	
Defense	Avalugg	ice		184.00	
Special Attack	Drampa	normal	dragon	135.00	
Special Defense	Bastiodon	rock	steel	138.00	
Speed	Sceptile	grass		120.00	
		Lowest			
Weight	Salandit	poison	fire	4.8	
Height	Chewtle	water		0.3	
Health	Shieldon	rock	steel	30.00	
Attack	Helioptile	electric	normal	38.00	
Defense	Whismur	normal		23.00	
Special Attack	Rhyhorn	ground	rock	30.00	
Special Defense	Whismur	normal		23.00	
Speed	Slowpoke	water	psychic	15.00	
Tied Pokemon					
Min Special Atk	Cranidos	rock			
Min Special Atk	Axew	dragon			

## No-Eggs

Pokemon in this category are mostly baby pokemon, Legendary Pokemon and Mythical Pokemon. They are also the largest genderless group, consisting of virtually all Legendaries in the game. As for the pokemon that are gendered, it is a solid 50/50 split, however the male pokemon are significantly stronger than their female counterparts, and also significantly faster.

Pokemon in this category often have 100 for all stats, with the exception of 90 special defense. This is the common stat range of Legendary Pokemon. The cumulative average ranges between 85-95.

The lightest pokemon in this group is Cosmog at 0.1kg, basically just gas, with Cosmoem, the evolution to Cosmog, being the shortest at 0.1m. However, Cosmoem is 999.9kg heavy, being the most dense and heaviest pokemon in history, given Cosmoem is literally a pokemon about to become a Star Legendary Pokemon. The longest Pokemon in this group is Eternatus at 20m long.

Cosmog and Cosmoems can no longer be bred and are considered to be in the no-egg group despite being baby pokemon due to the fact that in lore, these pokemon have been essentially poached to extinction, with one remaining per multiverse (No, we will not explain the multiverses and the Ultra Beasts in this paper.).

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	9	0	0	0	
fire	8	3	144.05	1.333333333	
water	9	2	186.6333333	1.15	
grass	7	4	56.41428571	1.25	
electric	14	3	91.29285714	2.1	
ice	5	4	209.48	2.3	
fighting	8	9	134.2625	2.044444444	
poison	5	4	236.36	0.75	
ground	4	4	394.5	2.825	
flying	1	13	63	3.323076923	
psychic	22	7	97.55454545	1.057142857	
bug	4	0	0	0	
rock	7	0	0	0	
ghost	4	5	200.875	1.64	
dark	9	3	250.3888889	1.7	
dragon	9	11	243.5	5.163636364	
steel	9	6	339.7222222	2.216666667	
fairy	7	10	60.07142857	1.04	
		Stats Spread			

Stat	Mean	Median	Mode	Total	
Health	87.42	90.00	100	12,326.00	
Attack	94.38	100.00	100	13,307.00	
Defense	87.82	90.00	100	12,382.00	
Special Attack	94.32	95.00	100	13,299.00	
Special Defense	89.01	90.00	90	12,551.00	
Speed	85.50	90.00	100	12,055.00	
		Gender Spread			
Count		Stats	Average		
		Genderless Pokemon			
114.00		Health	92.65789474		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
18		Health	59.33333333		
		Attack	62.83333333		
		Defense	56		
		Special Attack	67.94444444		
		Special Defense	69.38888889		
		Speed	61.72222222		
		50%+ Female Pokemon			
17		Health	64.76470588		
		Attack	44.23529412		
		Defense	53.58823529		
		Special Attack	56.64705882		
		Special Defense	71.11764706		
		Speed	50.11764706		
		Pokemon Awards			

Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Cosmoem	psychic		999.9	
Height	Eternatus	poison	dragon	20	
Health	Guzzlord	dark	dragon	223.00	
Attack	Kartana	grass	steel	181.00	
Defense	Skatataka	rock	steel	211.00	
Special Attack	Xurkitree	electric		173.00	
Special Defense	Regice	ice		200.00	
Speed	Regieleki	electric		200.00	
		Lowest			
Weight	Cosmog	psychic		0.1	
Height	Cosmoem	psychic		0.1	
Health	Pichu	electric		20.00	
Attack	Hapinny	normal		5.00	
Defense	Hapinny	normal		5.00	
Special Attack	Bonsly	rock		10.00	
Special Defense	Igglybuff	normal	fairy	20.00	
Speed	Munchlax	normal		5.00	
Tied Pokemon					
Max Weight	Celesteela	steel	flying		
Min Weight	Kartana	grass	steel		
Min Health	Mime Jr.	electric			

## Plant

Male pokemon surprisingly outnumber female pokemon in the plant egg group, yet there are no significant differences in stats between the genders. There are no genderless pokemon in this group. The most commonly seen stat numbers range between 30-70, with notoriously low speed at 30 and low physical attack at 40. The cumulative stat average ranges from 55 to 70.

The lightest and smallest pokemon in this group is Comfey at 0.3kg and 0.1m. The heaviest pokemon is Torterra at 310kg, with the tallest being Serperior at 3.3m

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	0	3	0	0	
fire	0	1	0	0	
water	3	0	0	0	
grass	77	9	29.21168831	1.022222222	
electric	0	0	0	0	
ice	0	2	0	0	
fighting	0	1	0	0	
poison	0	13	0	0	
ground	2	1	45.5	2.2	
flying	0	4	0	0	
psychic	0	2	0	0	
bug	2	0	0	0	
rock	0	0	0	0	
ghost	2	2	39	0.9	
dark	0	4	0	0	
dragon	0	3	0	0	
steel	0	2	0	0	
fairy	1	4	0.3	0.55	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	62.55	60.00	60	5,442.00	
Attack	69.40	67.00	40	6,038.00	
Defense	66.93	65.00	70	5,823.00	
Special Attack	70.60	65.00	60	6,142.00	
Special Defense	69.26	67.00	60	6,026.00	
Speed	55.10	55.00	30	4,794.00	



		Gender Spread			
Count		Stats	Average		
		Genderless Pokemon			
0.00		Health	0		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
81		Health	63.08641975		
		Attack	70.38271605		
		Defense	66.96296296		
		Special Attack	71.11111111		
		Special Defense	69.22222222		
		Speed	54.41975309		
		50%+ Female Pokemon			
69		Health	61.88405797		
		Attack	67.82608696		
		Defense	65.31884058		
		Special Attack	72.55072464		
		Special Defense	68.95652174		
		Speed	51.31884058		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Torterra	grass	ground	310	
Height	Serperior	grass		3.3	
Health	Amoongus	grass	poison	114.00	
Attack	Breloom	grass	fighting	130.00	
Defense	Ferrothorn	grass	steel	131.00	

Special Attack	Eggxecutor	grass	psychic	125.00	
Special Defense	Eldegloss	grass		120.00	
Speed	Meowscarda	grass	dark	123.00	
		Lowest			
Weight	Comfey	fairy		0.3	
Height	Comfey	fairy		0.1	
Health	Sunkern	grass		30.00	
Attack	Cottonee	grass	fairy	27.00	
Defense	Sunkern	grass		30.00	
Special Attack	Ferroseed	grass	steel	24.00	
Special Defense	Bellsprout	grass	poison	30.00	
Speed	Ferroseed	grass	steel	10.00	
Tied Pokemon					
Max Sp. Atk	Roserade	grass	poison		
Max Sp. Atk	Arboliva	grass	normal		
Max Sp. Def	Toedscreuel	ground	grass		
Min Def	Lotad	water	grass		
Min Def	Bramblin	grass	ghost		
Min Sp. Def	Sunkern	grass			
Min Sp. Def	Seedot	grass			
Min Speed	Glossifeur	grass			

## Water1

Male pokemon outnumber female pokemon in this group, however their stat difference is minimal. There are two genderless pokemon in this group. Commonly seen stats in this group range from 50-70, with robust defense at 80. The cumulative average of the stats range between 55-70.

The lightest pokemon is Cursola at 0.4kg, with the shortest being Shellos at 0.3m. The heaviest pokemon is Clodsire at a whopping 223 kg, with Milotic being the longest at an absurdly long 6.3m.

This group rivals Flying for the most amount of Pokemon tying for minimal stats.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	2	0	0	0	
fire	0	0	0	0	
water	81	13	39.83580247	0.8	
grass	0	3	0	0	
electric	5	1	31.32	0.7	
ice	5	2	76.54	2.1	
fighting	2	2	21.5	1.55	
poison	5	0	0	0	
ground	1	8	11	1.125	
flying	1	10	18	1.14	
psychic	0	5	0	0	
bug	2	2	2.65	1.05	
rock	4	5	23.625	0.9	
ghost	1	0	0	0	
dark	2	2	25.25	1.3	
dragon	3	2	76.6	1.8	
steel	0	1	0	0	
fairy	0	3	0	0	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	68.57	65.00	50	7,817.00	
Attack	70.21	67.00	65	8,004.00	
Defense	71.87	69.50	80	8,193.00	
Special Attack	71.18	65.50	50	8,115.00	
Special Defense	69.89	66.50	50	7,968.00	
Speed	57.78	55.00	70	6,587.00	
		Gender Spread			
Count		Stats	Average		

		Genderless Pokemon			
2.00		Health	90		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
110		Health	68.29090909		
		Attack	69.76363636		
		Defense	71.52727273		
		Special Attack	70.22727273		
		Special Defense	68.75454545		
		Speed	57.65454545		
		50%+ Female Pokemon			
81		Health	69.86419753		
		Attack	67.59259259		
		Defense	69.2962963		
		Special Attack	68.86419753		
		Special Defense	70.65432099		
		Speed	55.49382716		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Clodsire	poison	ground	223	
Height	Milotic	water		6.2	
Health	Alomomola	water		165.00	
Attack	Dragonite	dragon	flying	134.00	
Defense	Toxapex	dragon	flying	152.00	
Special Attack	Cursola	ghost		145.00	
Special Defense	Toxapex	poison	water	142.00	
Speed	Kilowatrell	electric	flying	125.00	

		Lowest			
Weight	Cursola	ghost		0.4	
Height	Shellos	water		0.3	
Health	Feebas	water		20.00	
Attack	Feebas	water		15.00	
Defense	Feebas	water		20.00	
Special Attack	Feebas	water		10.00	
Special Defense	Wooper	water	ground	25.00	
Speed	Pyukumuku	water		5.00	
Tied Pokemon					
Min Weight	Tadbulb	electric			
Min Height	Manaphy	water			
Min Height	Froakie	water			
Min Height	Dewpider	water	bug		
Min Height	Pyukumuku	water			
Min Height	Sobble	water			
Min Height	Chewtle	water			
Min Height	Pinchurchin	electric			
Min Height	Tadbulb	electric			

## Water2

Pokemon in this group are split pretty evenly in terms of male to female ratio, with minimal difference in stats between them. There are no genderless pokemon in this group. The most commonly seen stats range from 45-90, with 92 physical attack being pretty common, however the next highest stats are defense and speed at 60, which makes pokemon in this group extremely fragile but can hit pretty hard. The cumulative average stats range from 55 to 80.

The lightest and shortest pokemon is Wishiwashi Solo Form, at 0.3kg and 0.2m. Wishiwashi can combine with multiples of itself to become Wishiwashi School Form, quickly multiplying it's stats. The largest and heaviest Pokemon is Wailord, at 398kg and 14.5m.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	0	0	0	0	
fire	0	0	0	0	
water	30	1	58.14666667	0.3	
grass	0	0	0	0	
electric	0	2	0	0	
ice	0	0	0	0	
fighting	0	0	0	0	
poison	0	2	0	0	
ground	0	2	0	0	
flying	0	1	0	0	
psychic	0	4	0	0	
bug	0	0	0	0	
rock	0	1	0	0	
ghost	0	1	0	0	
dark	3	2	37	1.3	
dragon	1	0	0	0	
steel	0	0	0	0	
fairy	0	0	0	0	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	80.09	70.00	45	2,723.00	
Attack	76.68	76.50	92	2,607.00	
Defense	62.32	60.00	60	2,119.00	
Special Attack	61.85	65.00	65	2,103.00	
Special Defense	57.03	58.50	65	1,939.00	
Speed	72.65	67.50	60	2,470.00	
		Gender Spread			
Count		Stats	Average		
		Genderless Pokemon			

0.00		Health	0		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
33		Health	81.21212121		
		Attack	78.09090909		
		Defense	62.54545455		
		Special Attack	62.51515152		
		Special Defense	56.78787879		
		Speed	71.90909091		
		50%+ Female Pokemon			
33		Health	79.48484848		
		Attack	76.27272727		
		Defense	60.27272727		
		Special Attack	62.36363636		
		Special Defense	56.78787879		
		Speed	73.18181818		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Wailord	water		398	
Height	Wailord	water		14.5	
Health	Wailord	water		170.00	
Attack	Gyarados	water	flying	125.00	
Defense	Relicanth	water	rock	130.00	
Special Attack	Tatsugiri	dragon	water	120.00	
Special Defense	Gyarados	water	flying	100.00	
Speed	Barraskewda	water		136.00	

		Lowest			
Weight	Wishiwashi Solo Form	water		0.3	
Height	Wishiwashi Solo Form	water		0.2	
Health	Magikarp	water		20.00	
Attack	Magikarp	water		10.00	
Defense	Carvanha	water	dark	20.00	
Special Attack	Magikarp	water		15.00	
Special Defense	Magikarp	water		20.00	
Speed	Dodongo	water		35.00	
Tied Pokemon					
Min Def	Wishiwashi Solo Form	water			
Min Sp. Def	Carvanha	water	dark		

### Water3

Male pokemon in this group vastly outnumber female pokemon, however, there is very minimal stat differences between the two. There are two genderless pokemon in this group. The most commonly seen stats range from 30 to 90, with 30 health and 95 attack, 70 speed. These pokemon are incredibly fragile, but have an easier time dodging and attacking. The cumulative stat spread is between 55-85.

The lightest pokemon in this group is Cursola at 0.4kg, with the shortest being Shellder at 0.3m. The heaviest pokemon is Crabominable at 180kg, with the tallest being Golissipod at 2m.

		Descriptive Stats			
		Type Spread			
Type	Primary	Secondary	Av. Weight (kg)	Av. Height (m)	
normal	0	0	0	0	
fire	0	0	0	0	
water	17	8	36.21176471	0.9375	
grass	0	2	0	0	
electric	0	0	0	0	



ice	0	2	0	0	
fighting	2	0	0	0	
poison	2	2	36.75	1.25	
ground	0	0	0	0	
flying	0	2	0	0	
psychic	0	1	0	0	
bug	2	3	60	1	
rock	13	3	38.99230769	0.8333333333	
ghost	1	0	0	0	
dark	0	2	0	0	
dragon	0	0	0	0	
steel	0	0	0	0	
fairy	0	0	0	0	
		Stats Spread			
Stat	Mean	Median	Mode	Total	
Health	55.00	55.00	30	2,035.00	
Attack	83.84	81.00	95	3,102.00	
Defense	85.03	88.00	65	3,146.00	
Special Attack	65.38	60.00	50	2,419.00	
Special Defense	65.19	63.00	55	2,412.00	
Speed	62.22	59.00	70	2,302.00	
		Gender Spread			
Count		Stats	Average		
		Genderless Pokemon			
2.00		Health	45		
		Attack	0		
		Defense	0		
		Special Attack	0		
		Special Defense	0		
		Speed	0		
		50%+ Male Pokemon			
33		Health	55.15151515		
		Attack	85.81818182		

		Defense	86.6969697		
		Special Attack	61.78787879		
		Special Defense	62.03030303		
		Speed	61.72727273		
		50%+ Female Pokemon			
23		Health	53.04347826		
		Attack	82.91304348		
		Defense	83.30434783		
		Special Attack	58.69565217		
		Special Defense	64.69565217		
		Speed	63.34782609		
		Pokemon Awards			
Stat	Name	Type Primary	Type Secondary	Stat Value	
		Highest			
Weight	Crabominable	fighting	ice	180	
Height	Golissipod	bug	water	2	
Health	Crabominable	fighting	ice	97.00	
Attack	Archeops	rock	flying	140.00	
Defense	Cloyster	water	ice	180.00	
Special Attack	Cursola	ghost		145.00	
Special Defense	Cursola	ghost		130.00	
Speed	Wugtrio	water		120.00	
		Lowest			
Weight	Cursola	ghost		0.4	
Height	Shellder	water		0.3	
Health	Wigglet	water		10.00	
Attack	Wimpod	bug	water	35.00	
Defense	Wigglet	water		25.00	
Special Attack	Wimpod	bug	water	20.00	
Special Defense	Shellder	water		25.00	
Speed	Tirtouga	water	rock	22.00	

Tied Pokemon					
Min Sp. Def	Krabby	water			
Min Sp Def	Wigglet	water			

## Conclusion

This project has allowed us to see Pokemon from a brand new lens, making connections from what are basically familial ties to each other. While some of our questions were not answered and, if anything, brought even more questions (such as why is  $\frac{1}{3}$  of the entire roster in Ground?! and why couldn't we have named the three Water groups literally anything else??); we have come across interesting connections in a game franchise very beloved to us, and has given us a brand new appreciation for the wonky, hilarious world of Pokemon. This project has allowed us to feel like Pokemon Professors, though we would argue there should be a new type of Pokemon Professional: Pokemon Statistician .

We hope that this report has shown some interesting facts in a surprisingly understudied way. Egg groups are commonly deemed extremely annoying and confusing, so we hope that this report brings more information to the community in the future.