

# Cantina Royale Report

## Species distribution

Number of NFTs for each specie

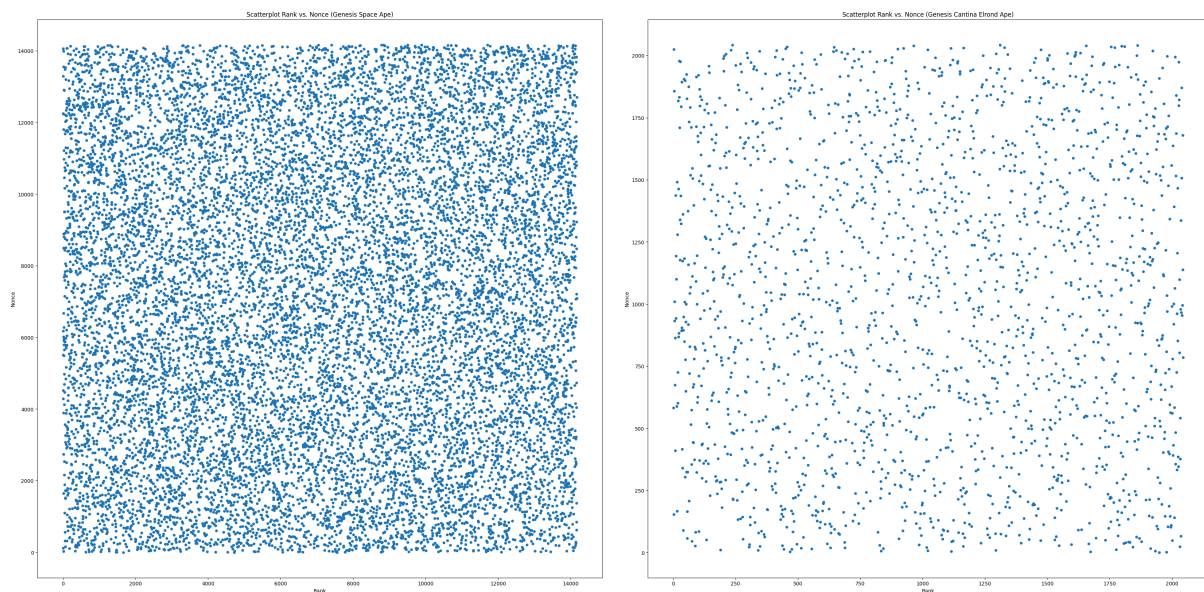
percentage is over total number of NFTs (16209)

Species	Number of NFT	Percentage
Genesis Space Ape	14166	87.395891
Genesis Cantina Elrond Ape	2043	12.604109

## Scatterplot Rank vs. Nonce

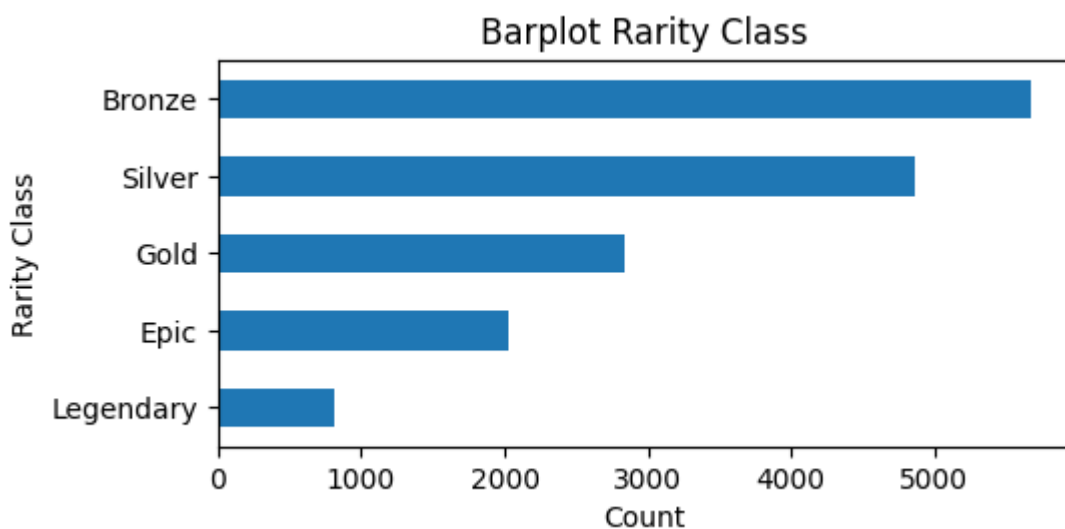
Genesis Space Ape on left, Genesis Cantina Elrond Ape on right

Those scatterplots prove the uniform distribution of rarity over the mint order. This means that no matter the moment of the mint, you have the same possibility to obtain a rare NFT from the remaining.



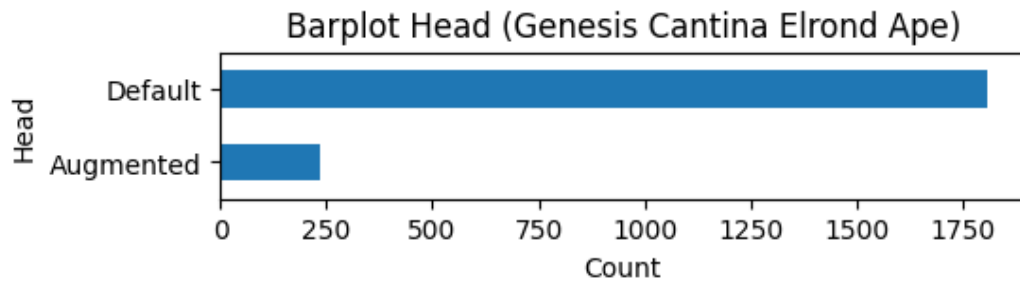
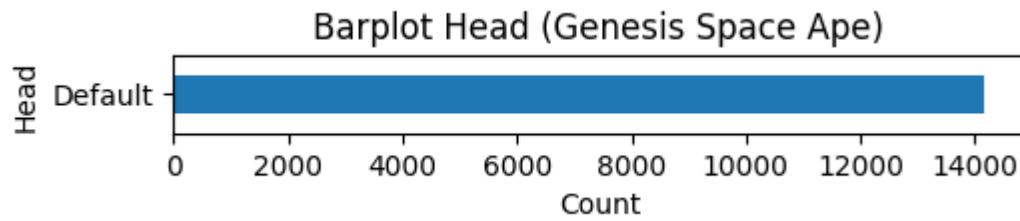
## Barplot Rarity Class

number of NFT for each rarity no matter the species of the NFTs



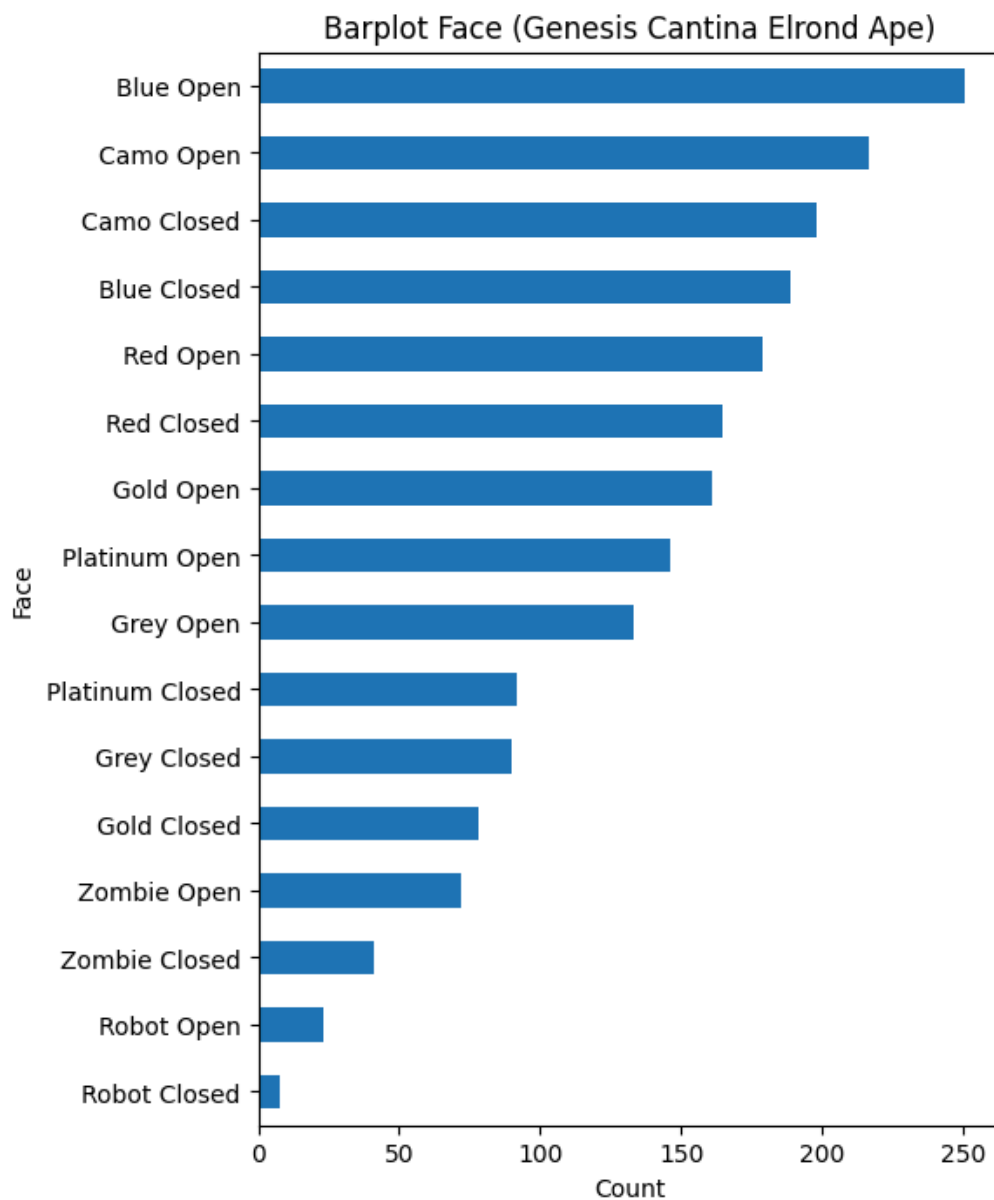
## Barplot Head

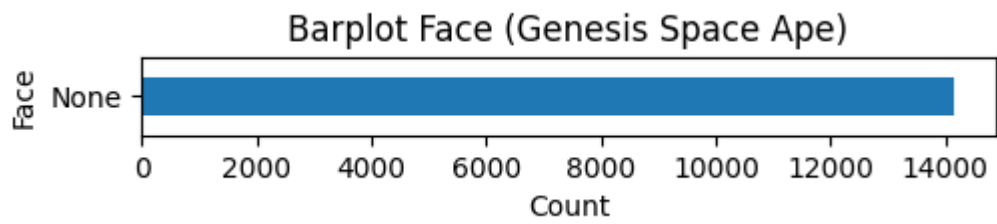
for each species we plot the distribution of the head types



## Barplot Face

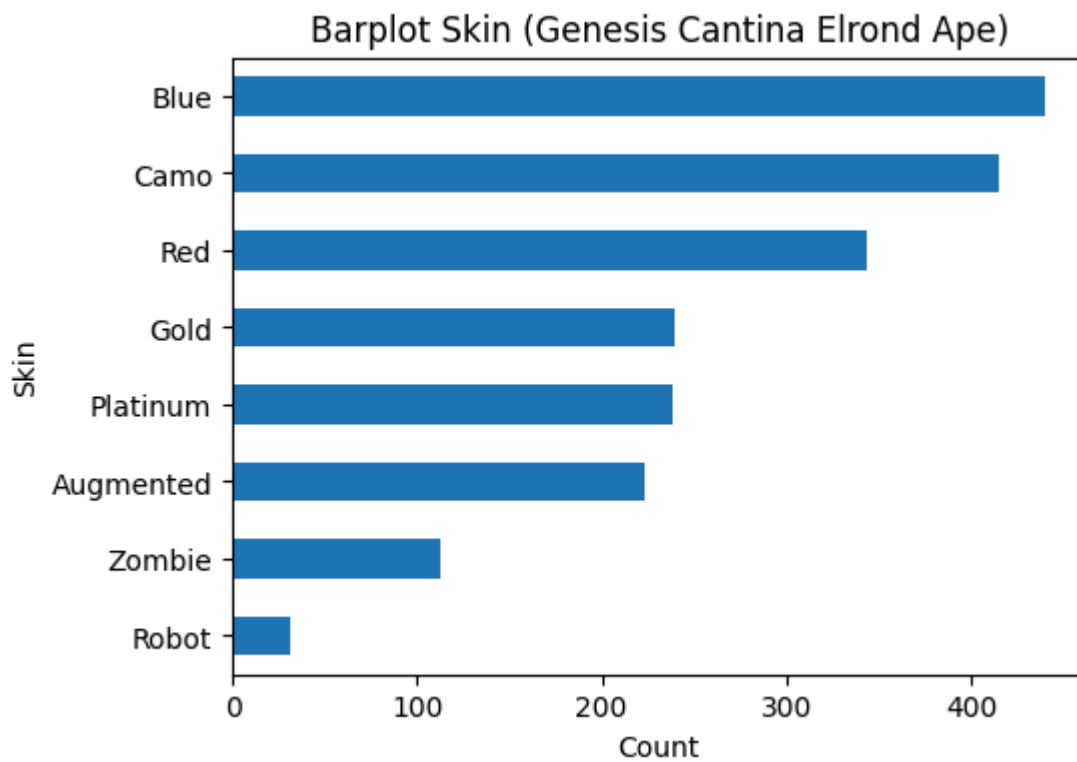
for each species we plot the distribution of the face types



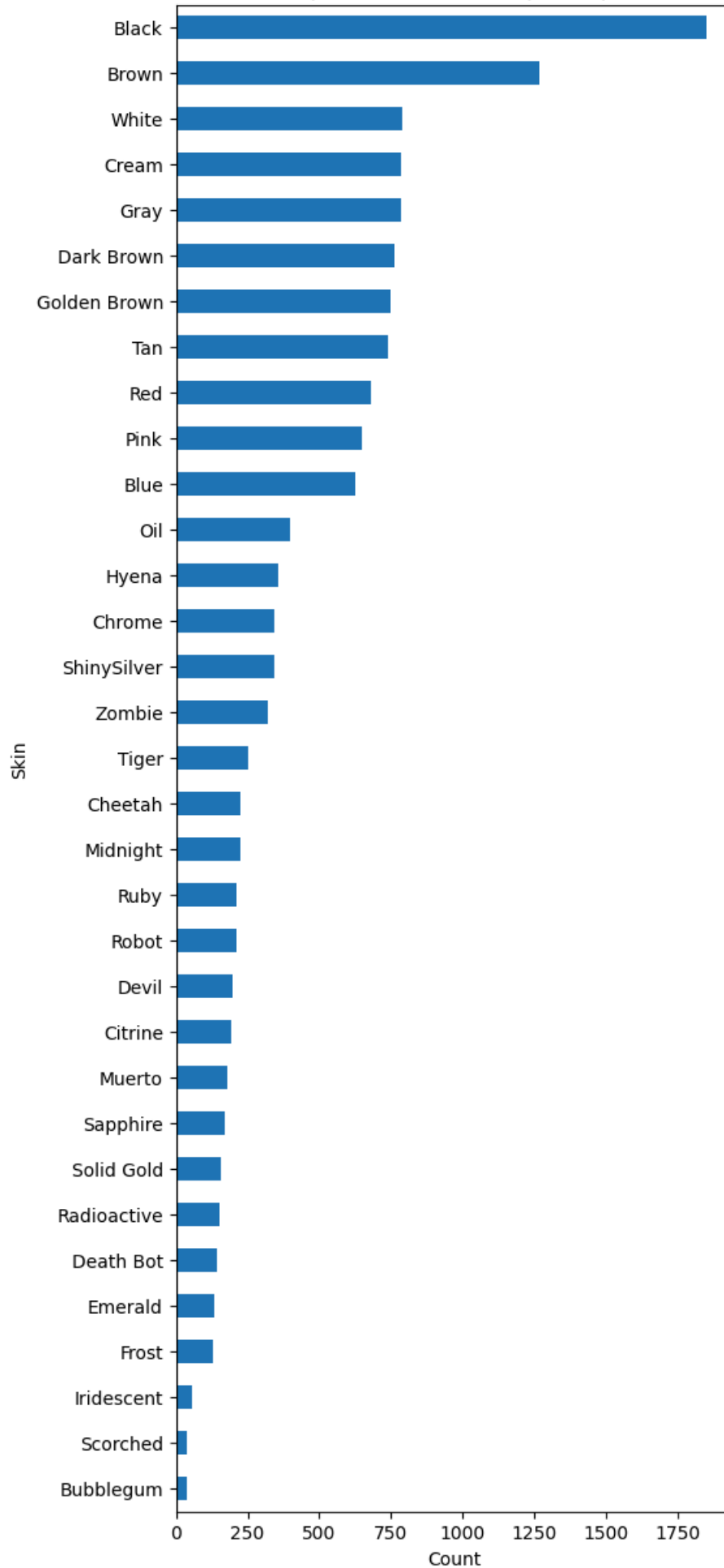


### Barplot Skin

for each species we plot the distribution of the skin types

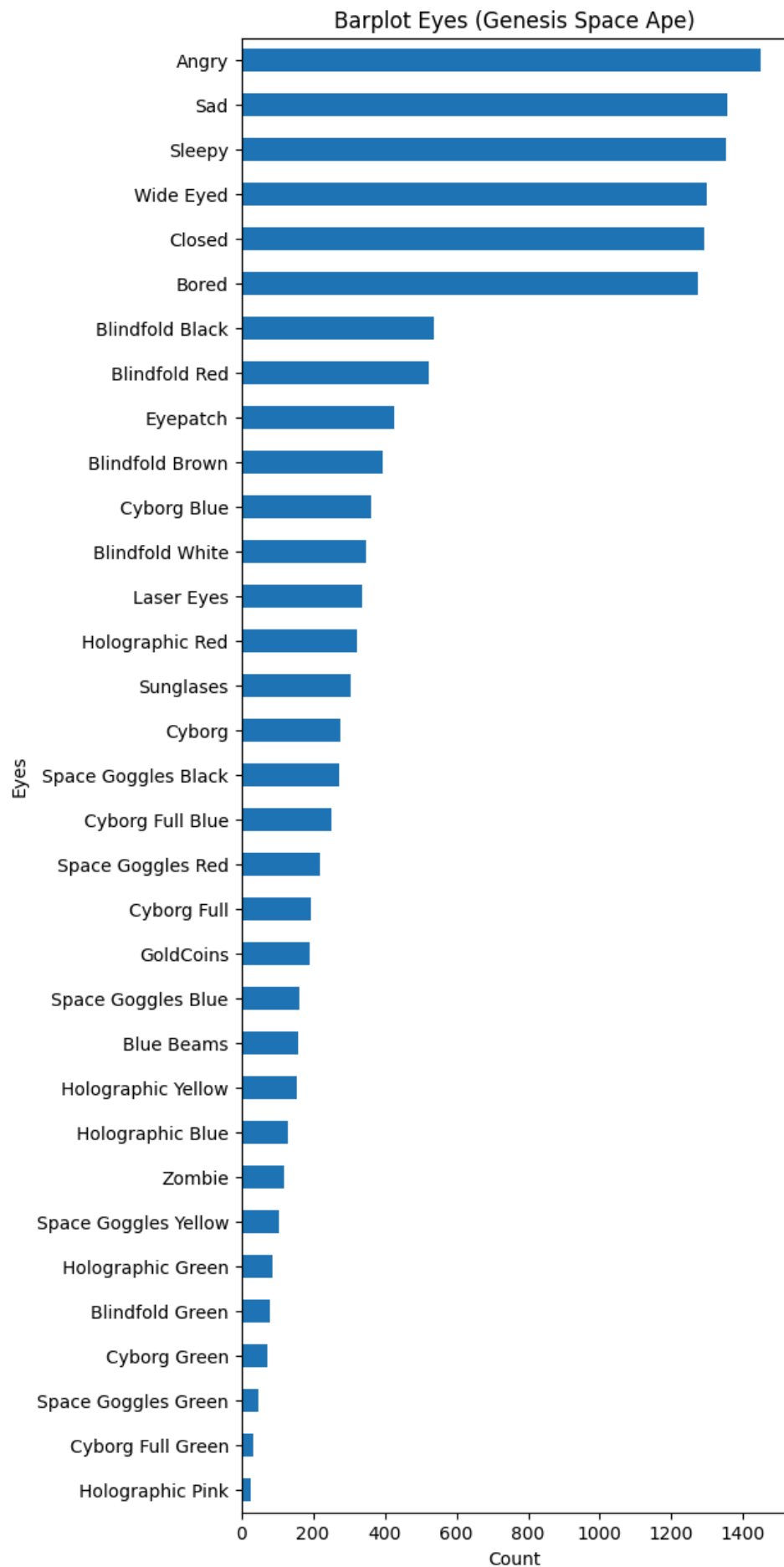


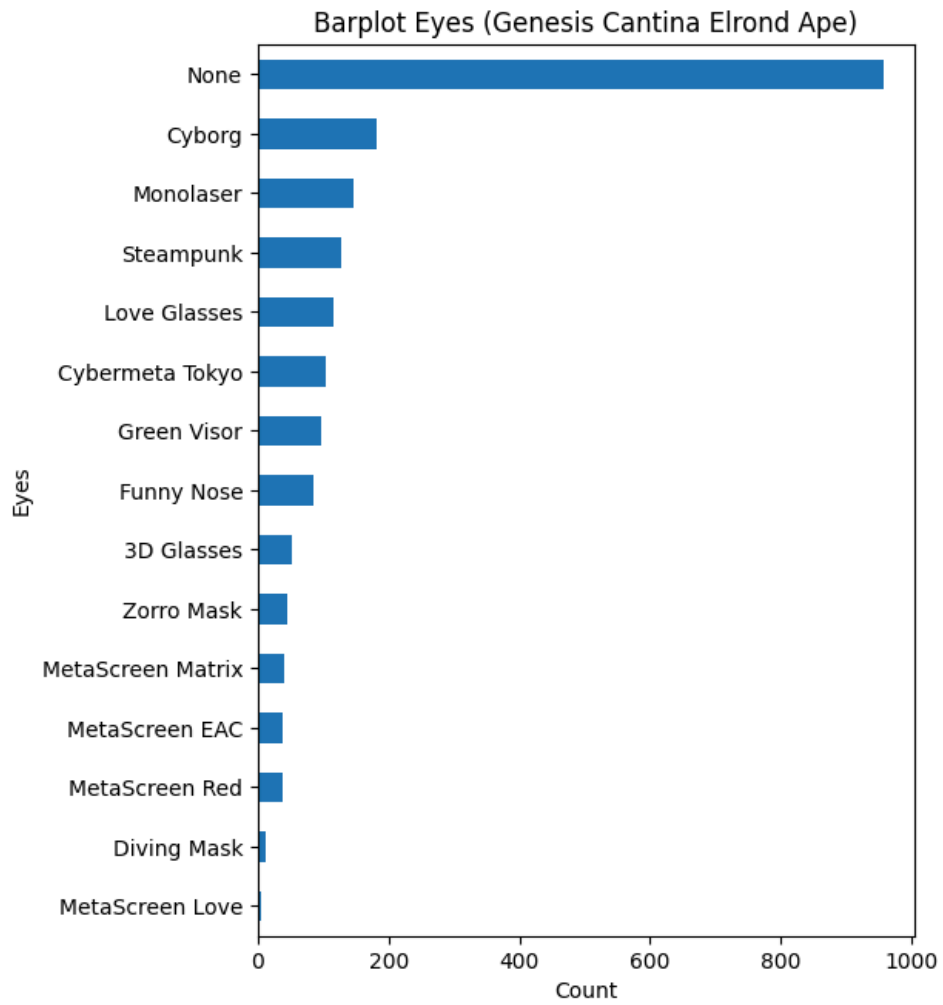
Barplot Skin (Genesis Space Ape)



## Barplot Eyes

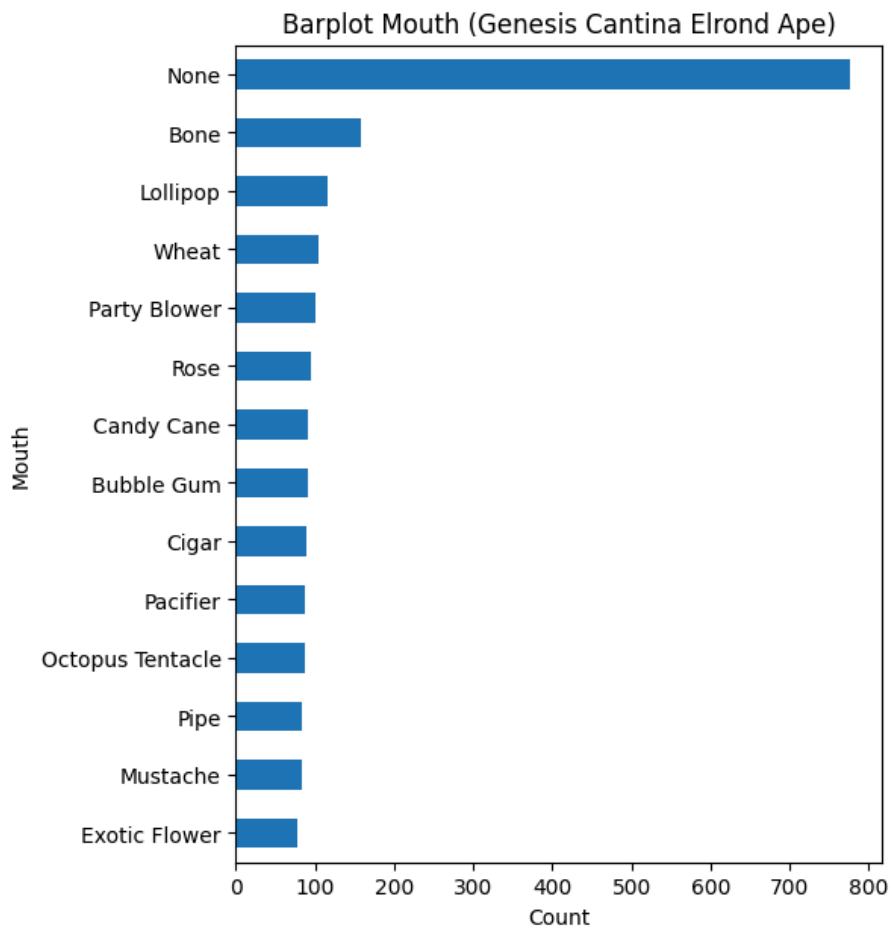
for each species we plot the distribution of the eyes types

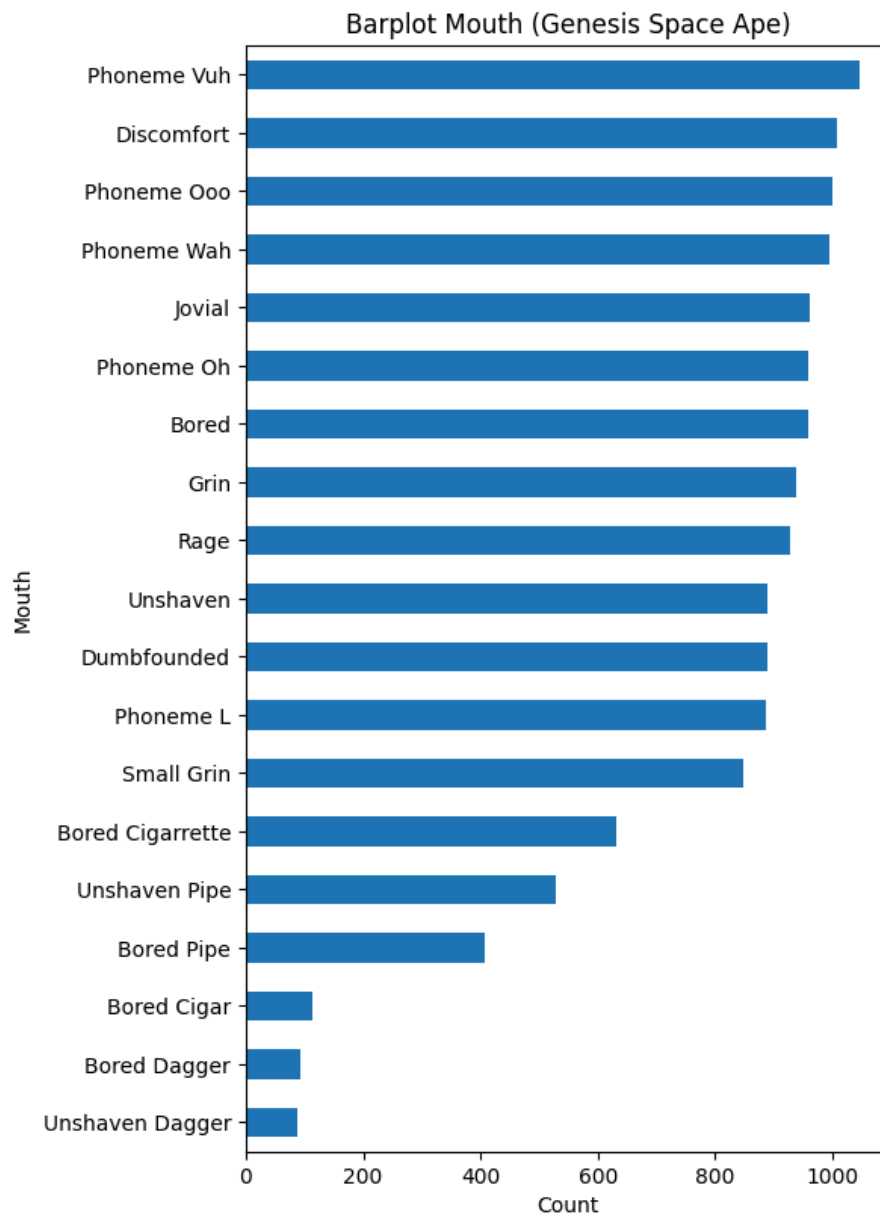




### Barplot Mouth

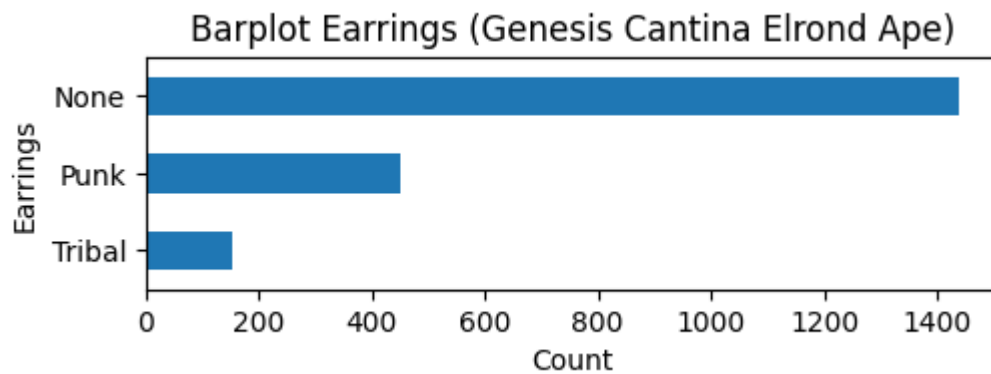
for each species we plot the distribution of the mouth types

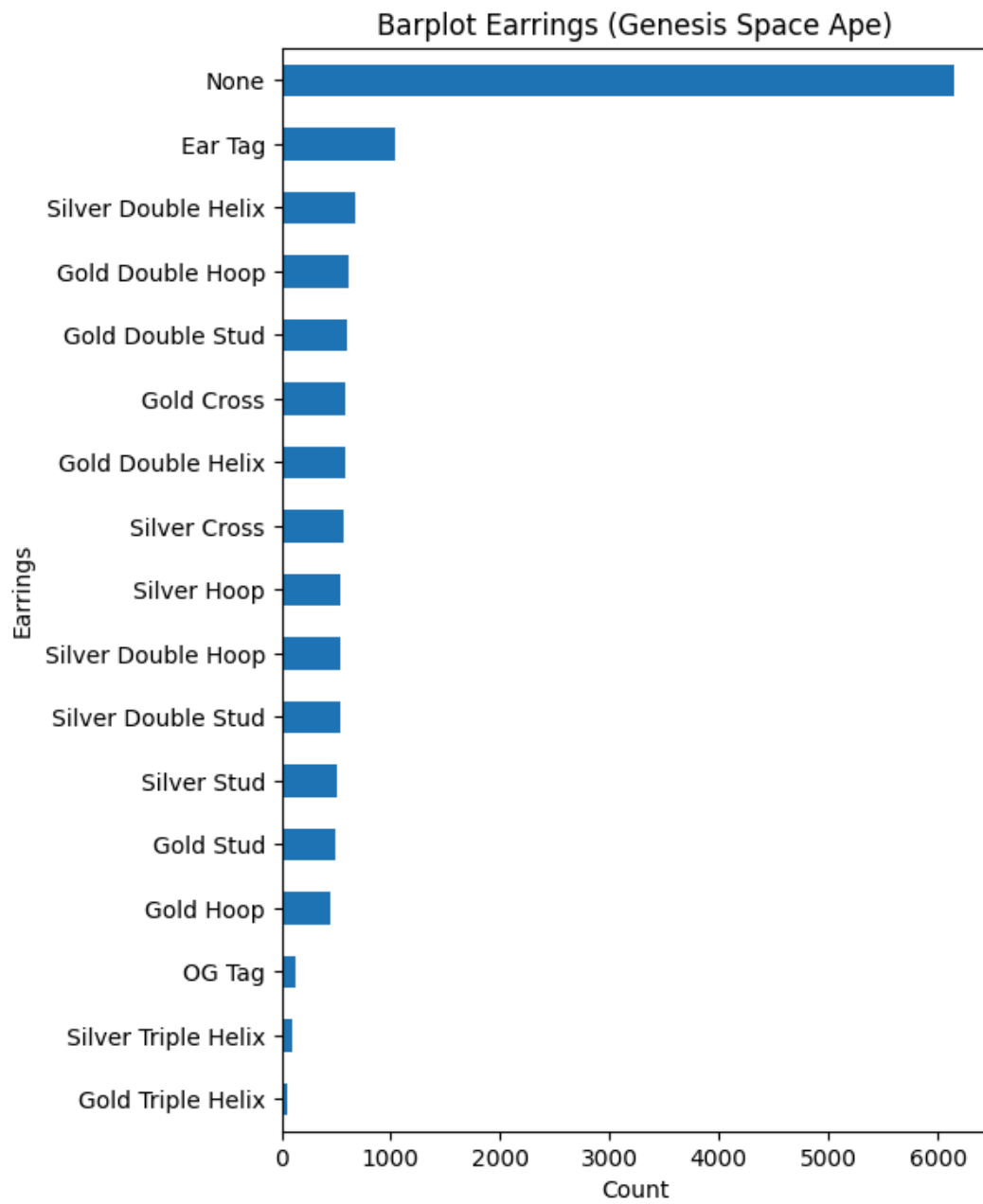




### Barplot Earrings

for each species we plot the distribution of the earrings types

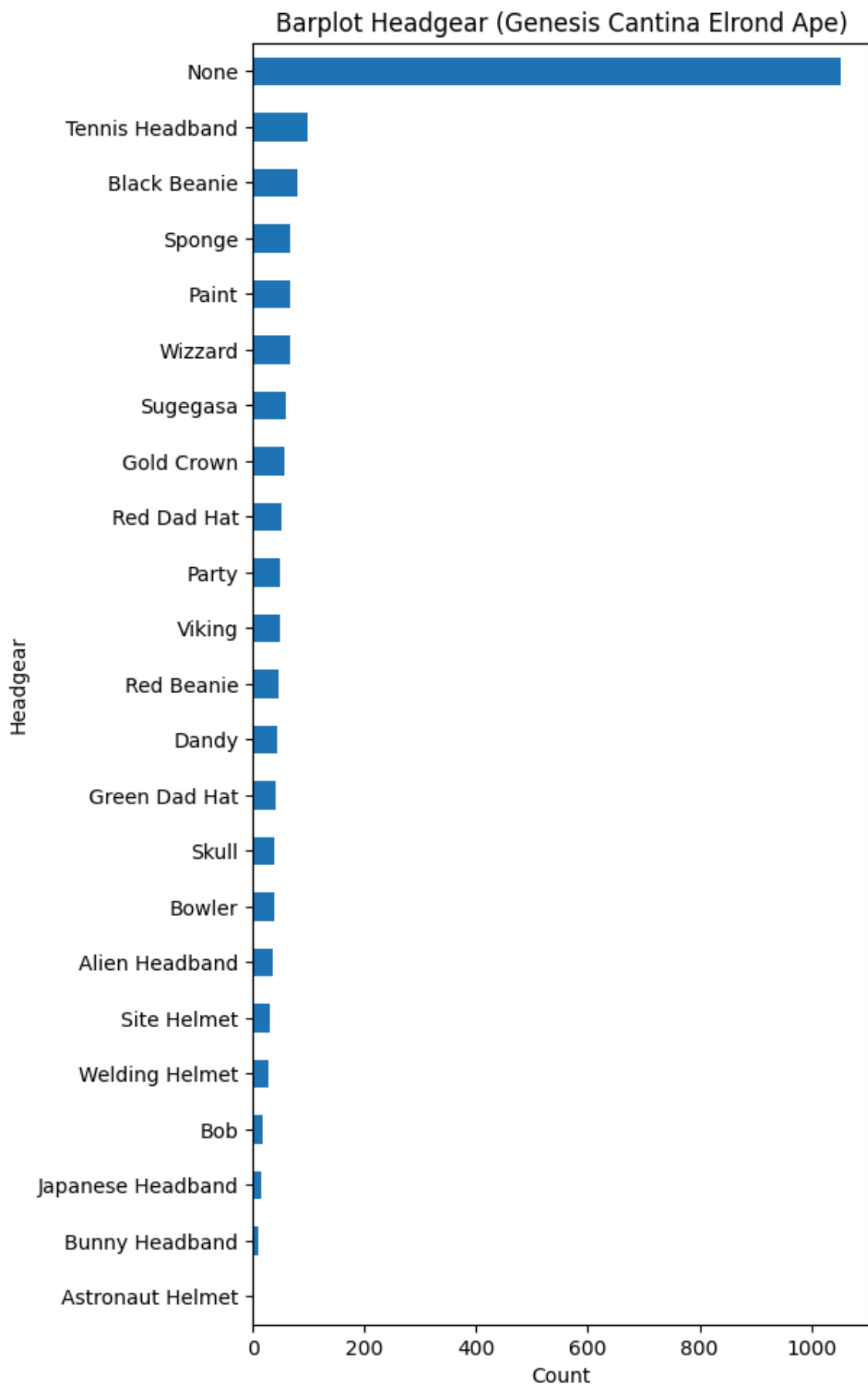




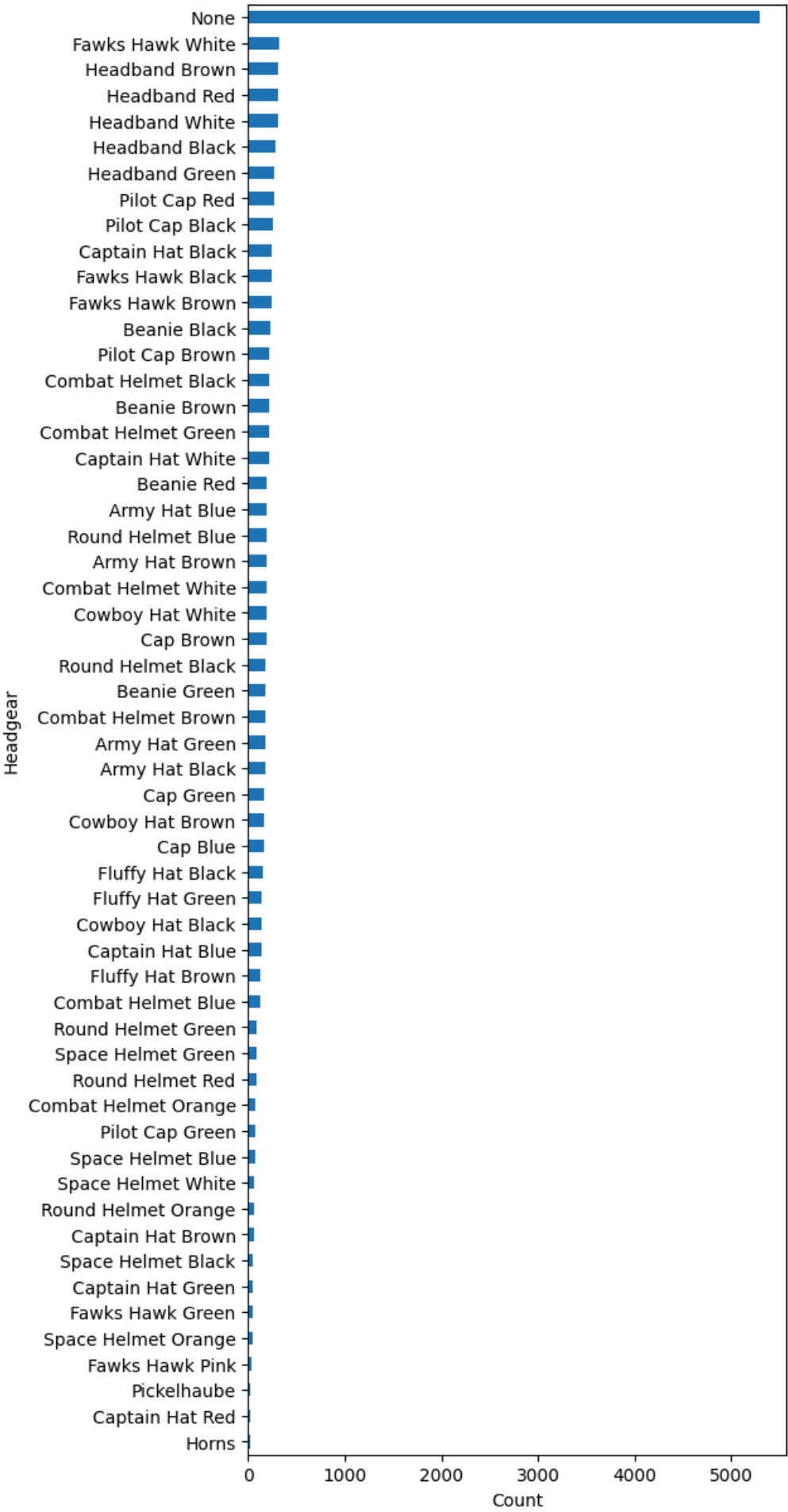


## Barplot Headgear

for each species we plot the distribution of the headgear types

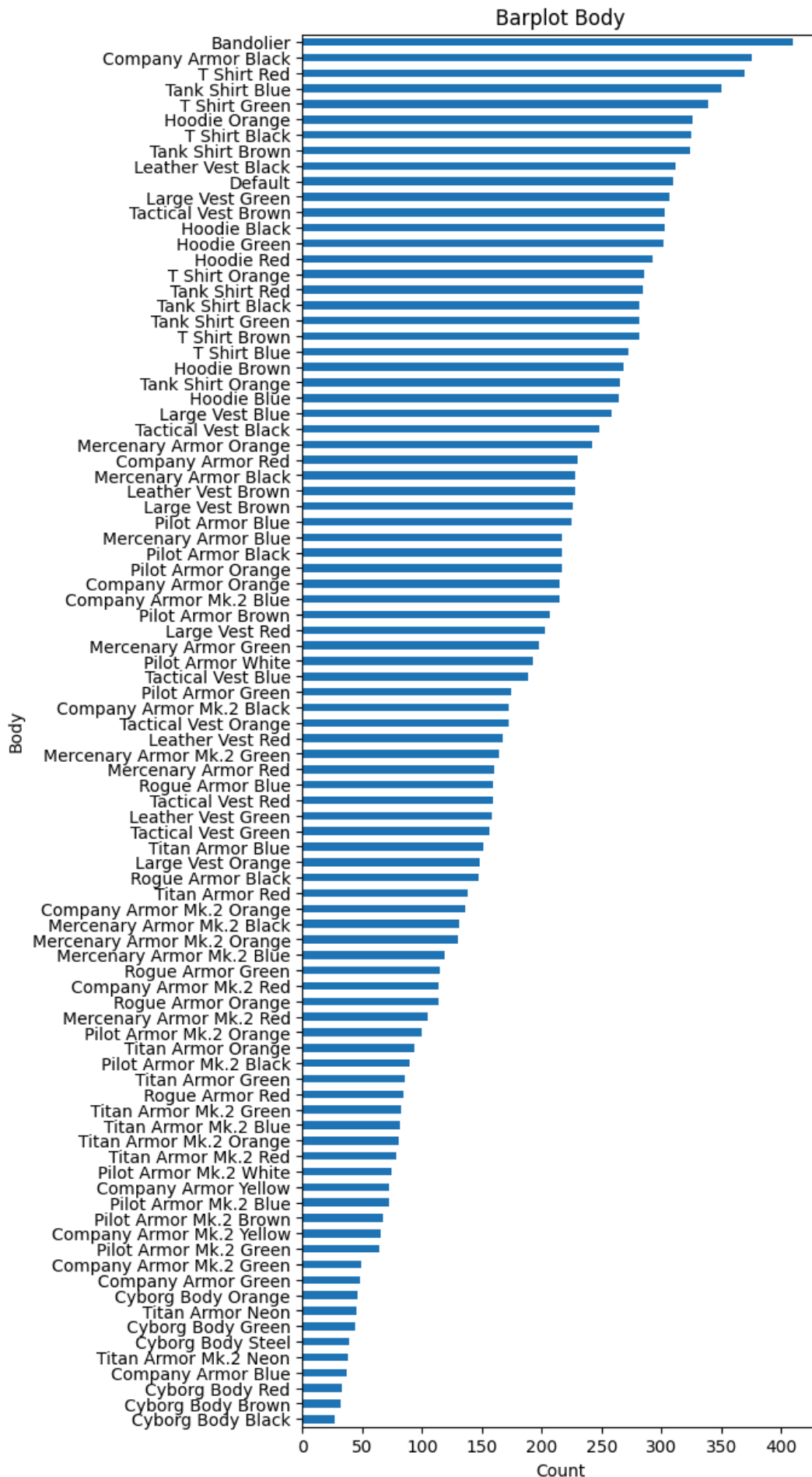


Barplot Headgear (Genesis Space Ape)



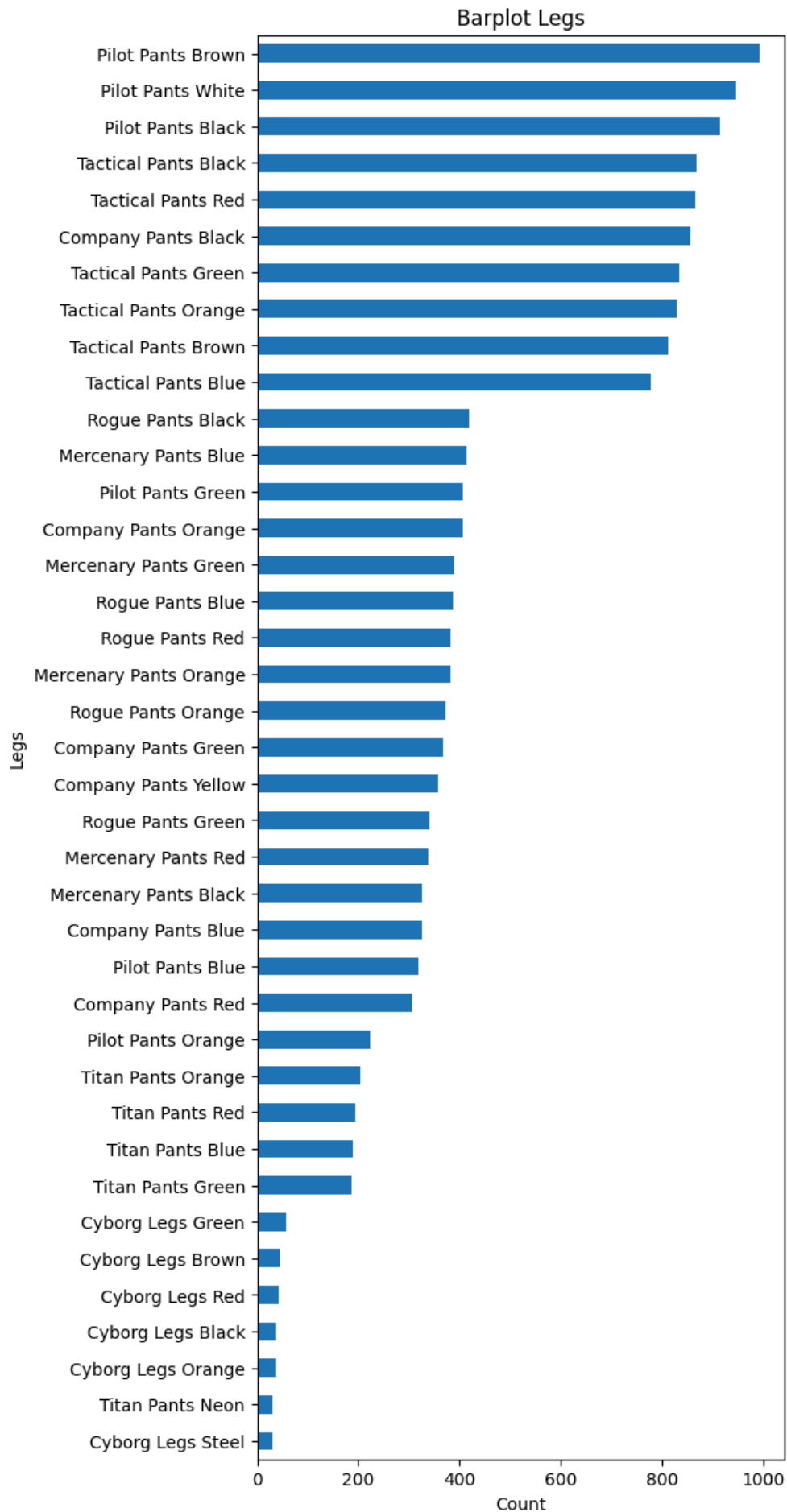
## Barplot Body

we plot the distribution of the body types it does not matter the species as the types are the same between species



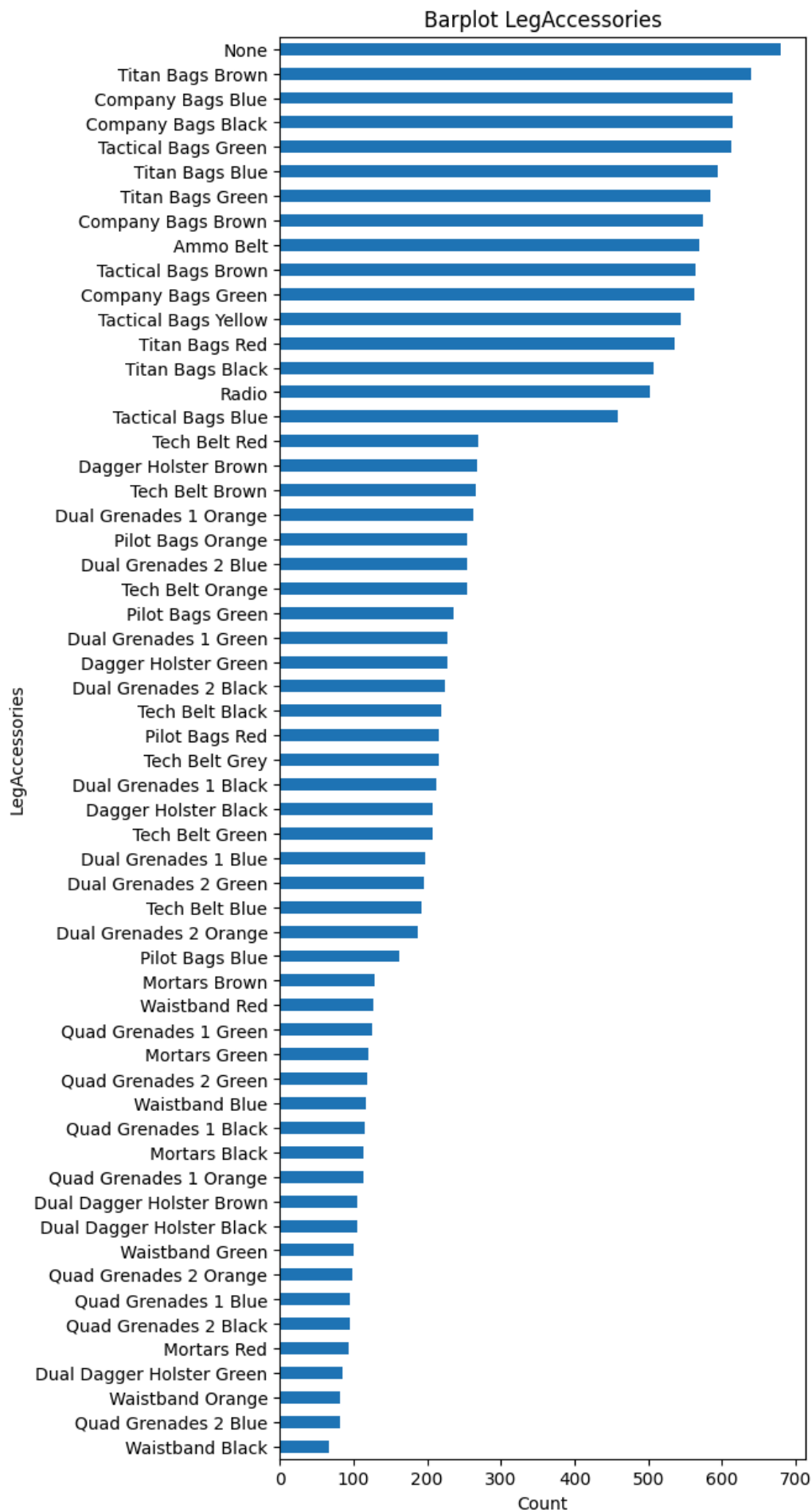
## Barplot Legs

we plot the distribution of the legs types it does not matter the species as the types are the same between species



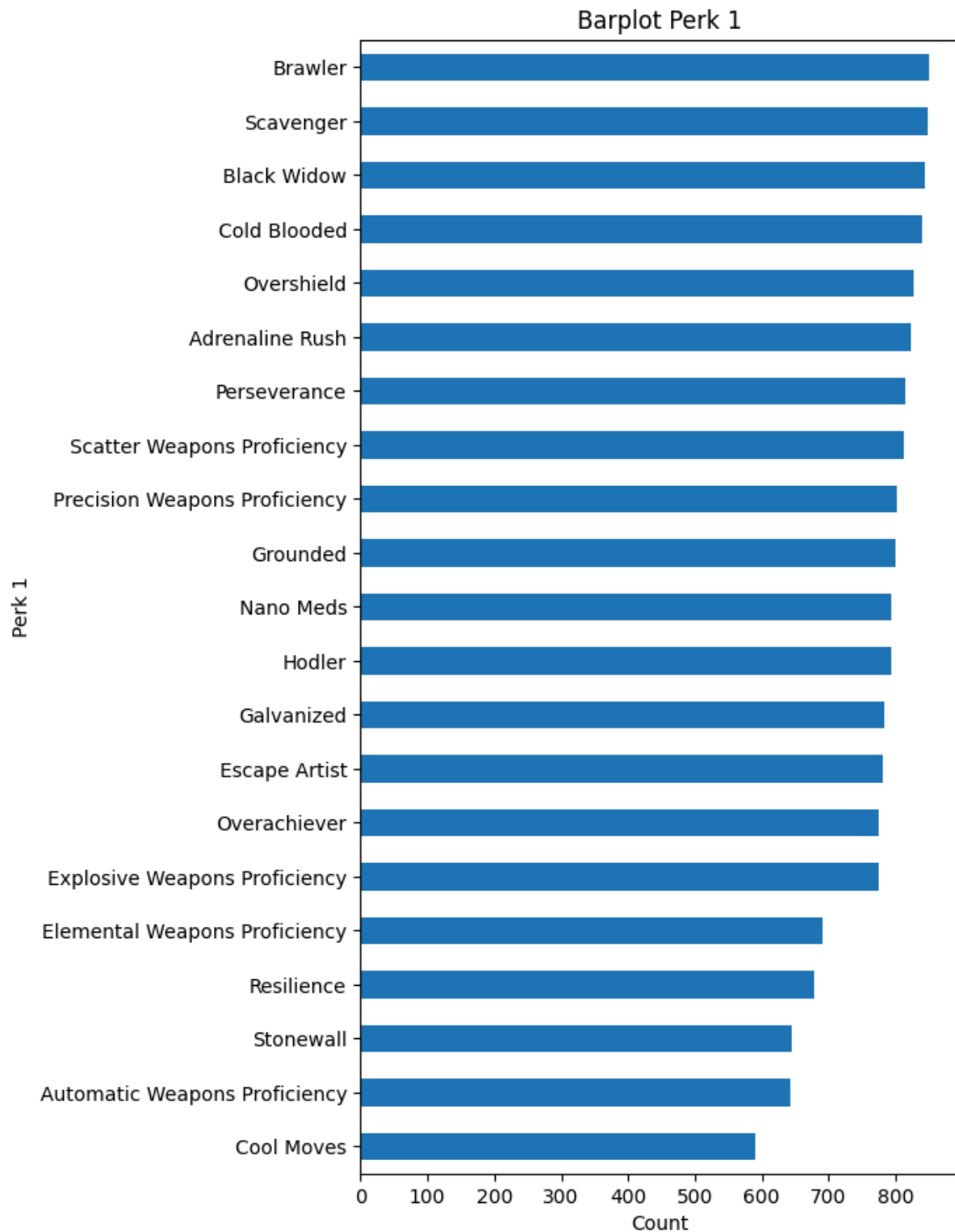
## Barplot LegAccessories

we plot the distribution of the leg accessories types it does not matter the species as the types are the same between species



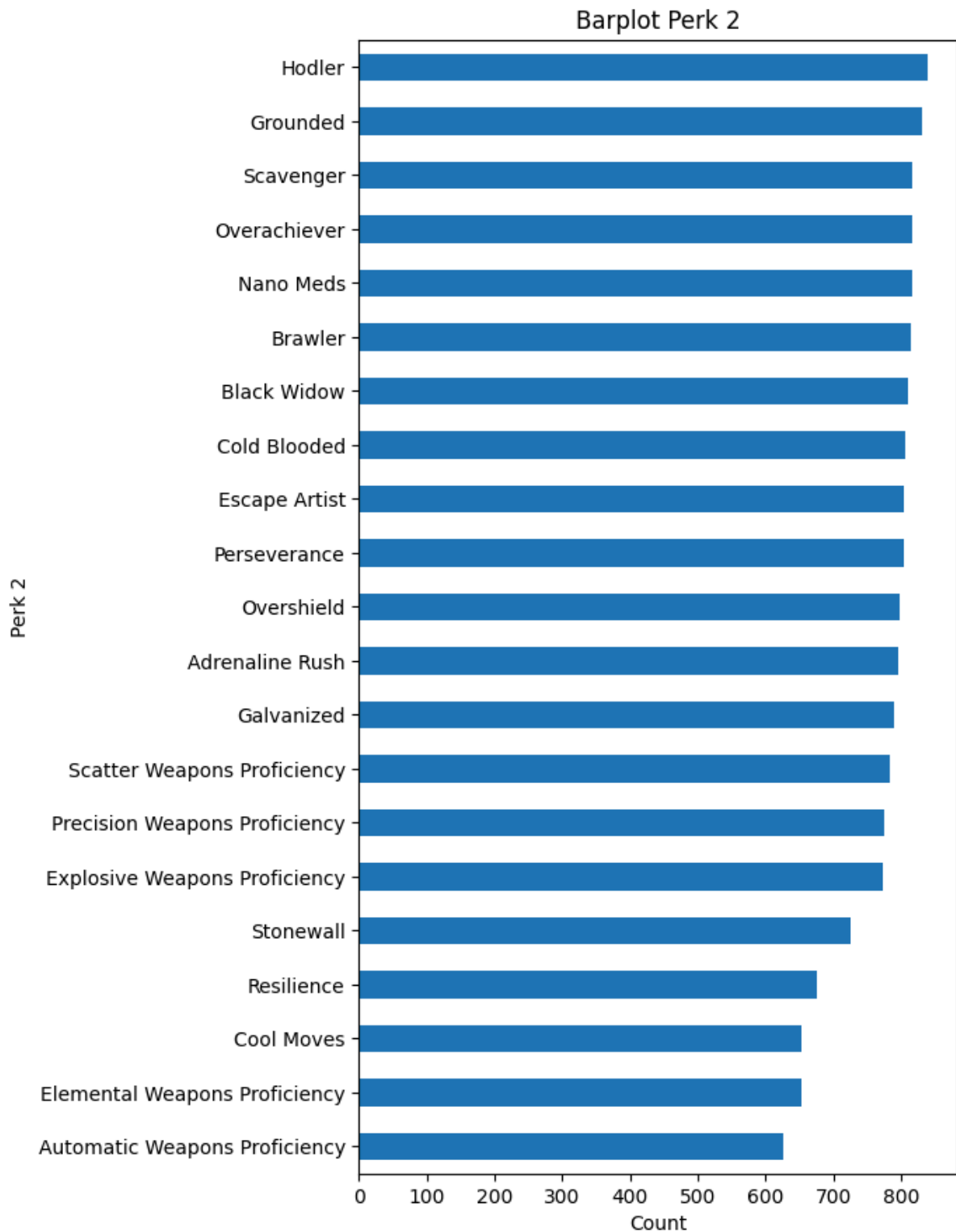
## Barplot Perk 1

we plot the distribution of the perk 1 types it does not matter the species as the types are the same between species



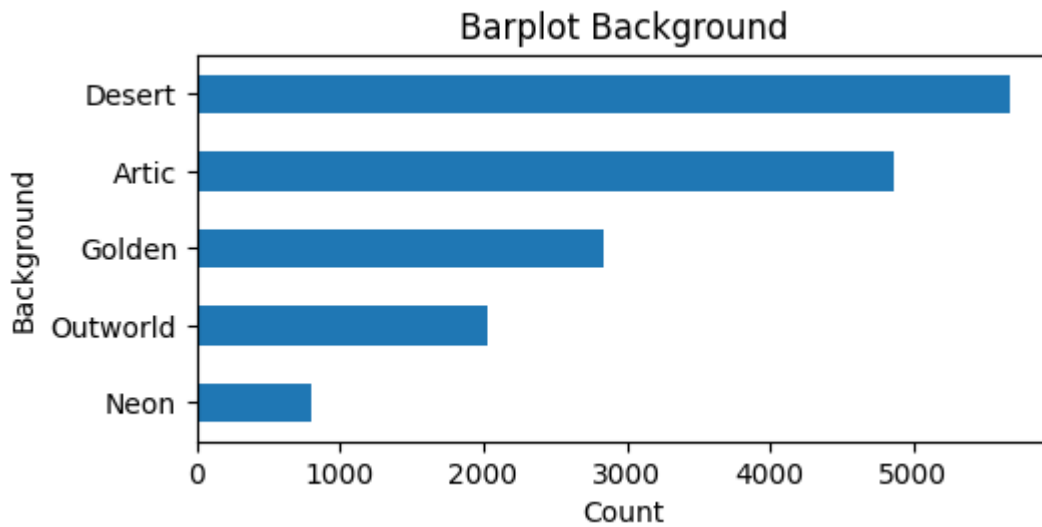
## Barplot Perk 2

we plot the distribution of the perk 2 types it does not matter the species as the types are the same between species



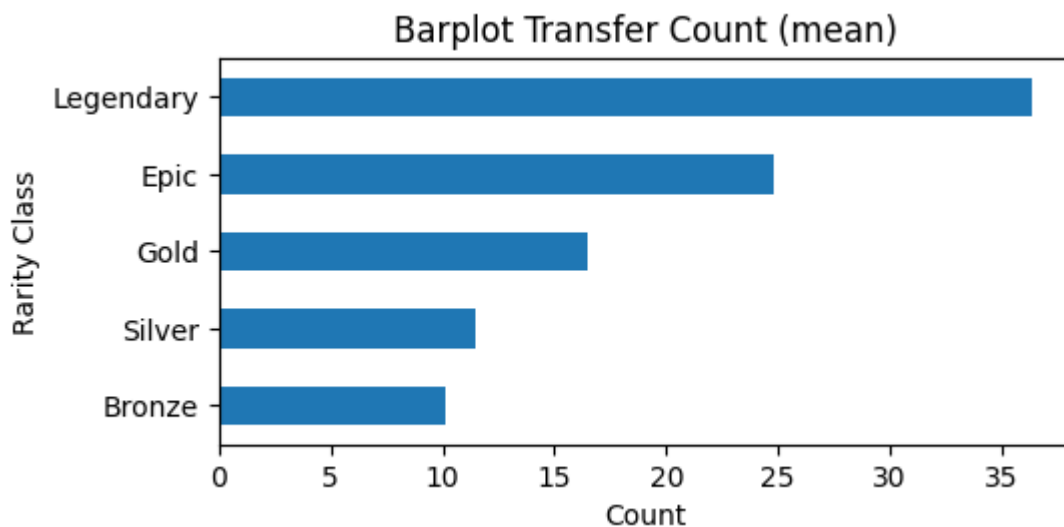
### Barplot Background

we plot the distribution of the background types it does not matter the species as the types are the same between species



### Barplot Transfer Count (mean)

we plot the Transfer Count (mean) for each Rarity Class



### Rarity Class distribution

Number of NFTs for each rarity class

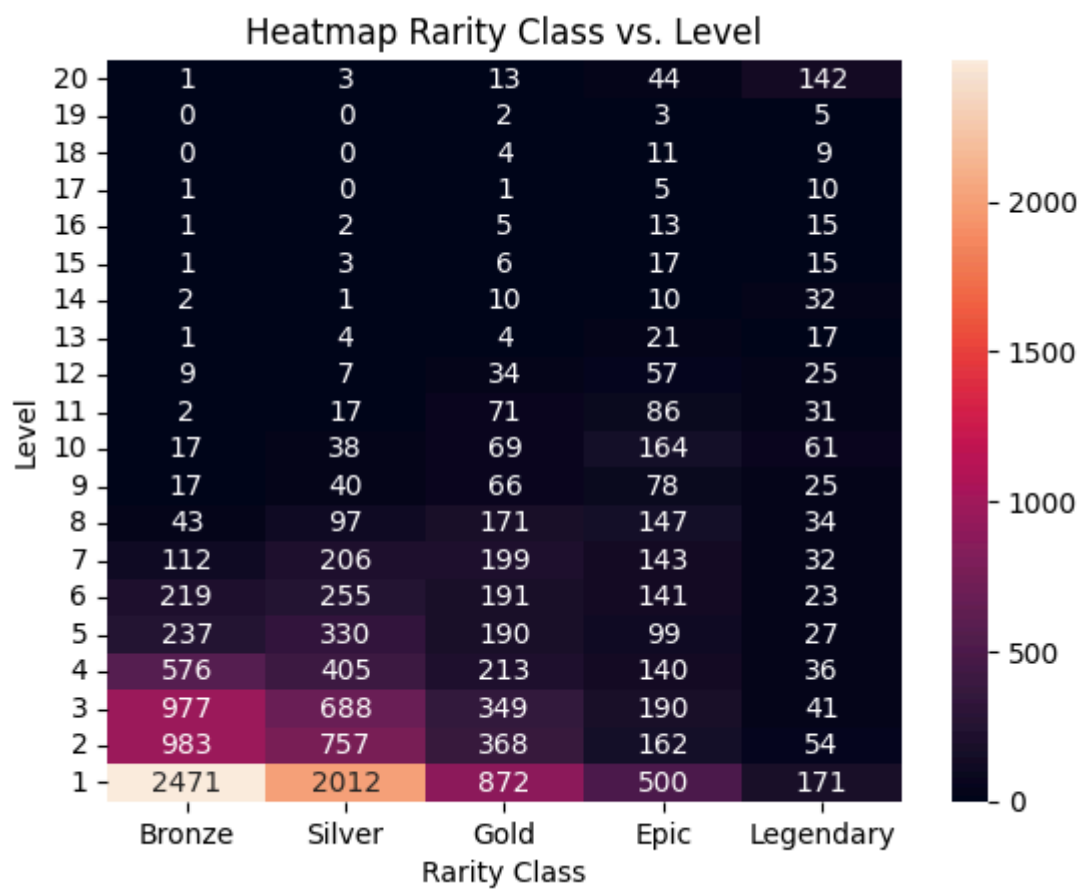
percentage is over total number of NFTs (16209)

Rarity Class	Number of NFT	Percentage
Bronze	5670	34.980566
Silver	4865	30.014190
Gold	2838	17.508791
Epic	2031	12.530076
Legendary	805	4.966377



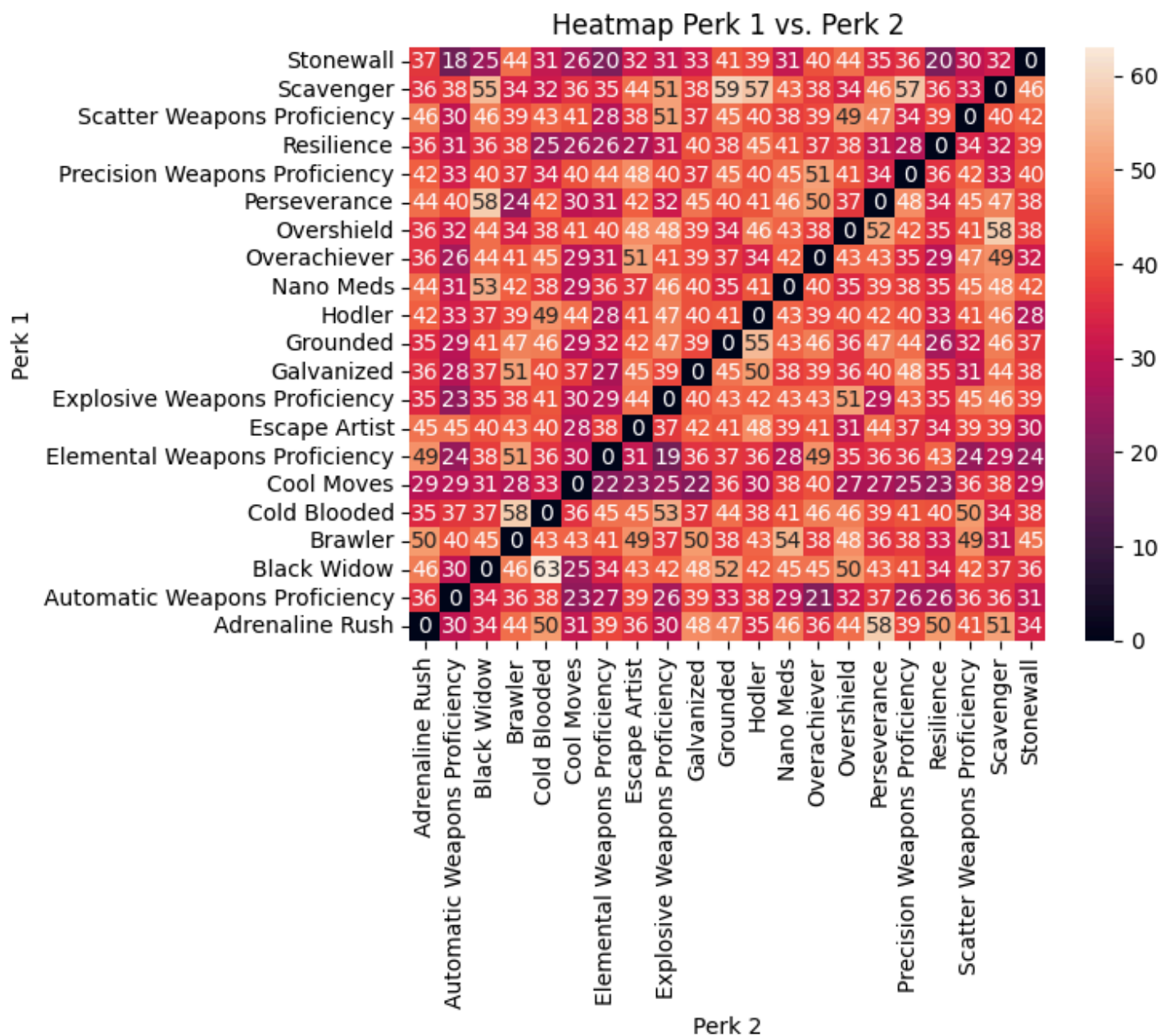
### Heatmap Rarity Class vs. Level

display the amount of NFTs with a certain rarity class and certain level



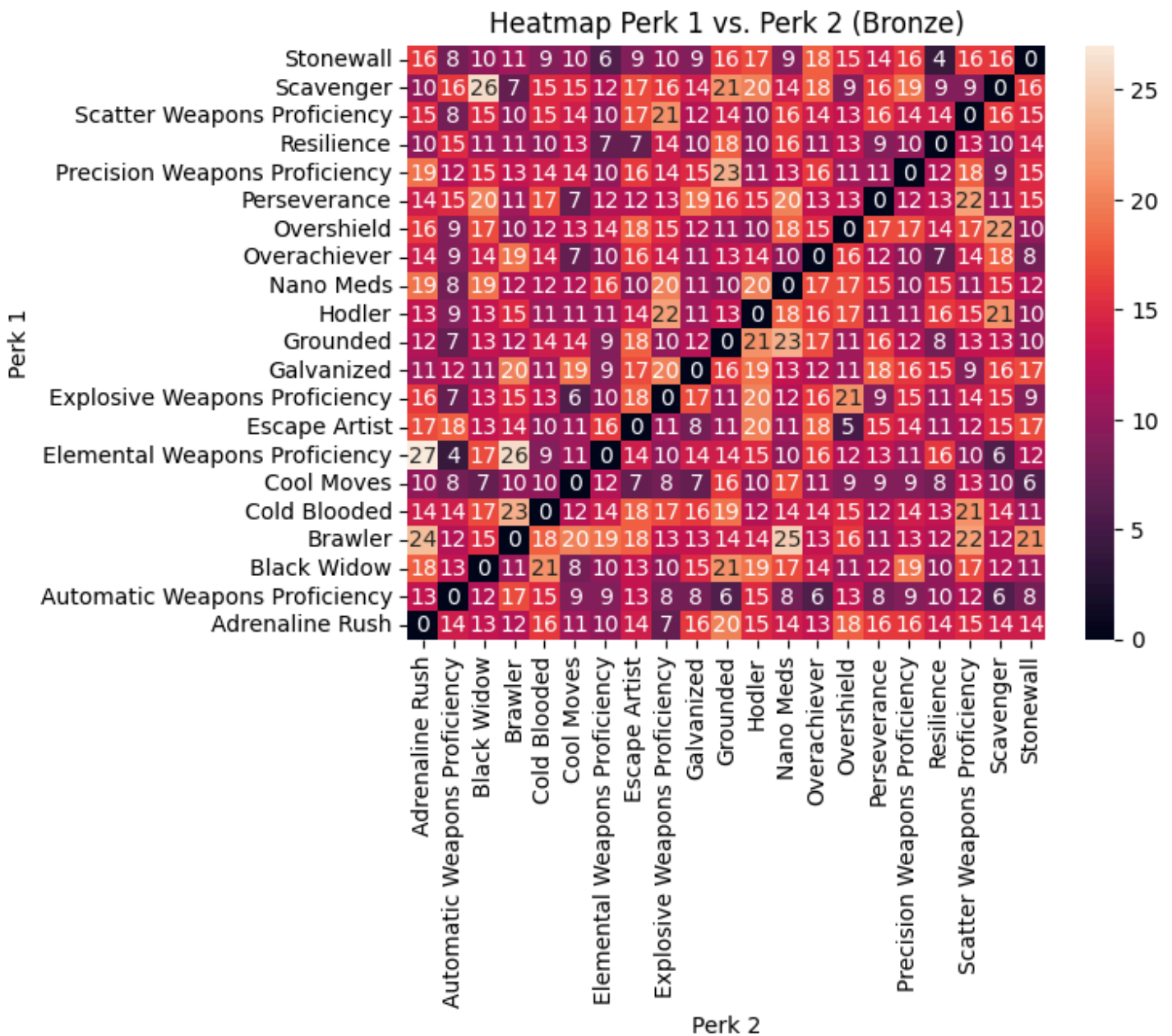
## Heatmap Perk 1 vs. Perk 2

display the amount of NFTs with a certain perk 1 and certain perk 2



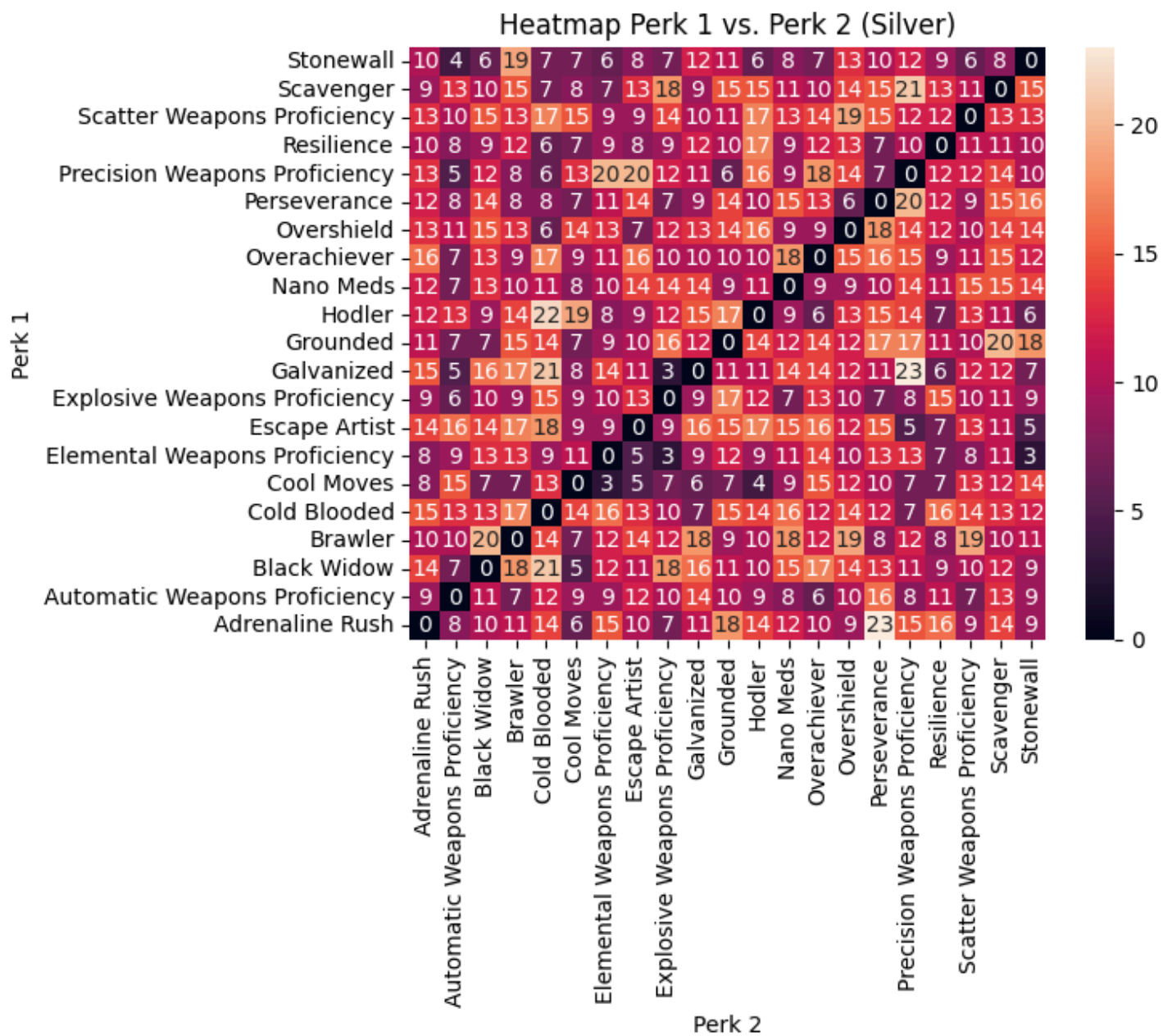
## Heatmap Perk 1 vs. Perk 2 (Bronze)

display the amount of Bronze NFTs with a certain perk 1 and certain perk 2



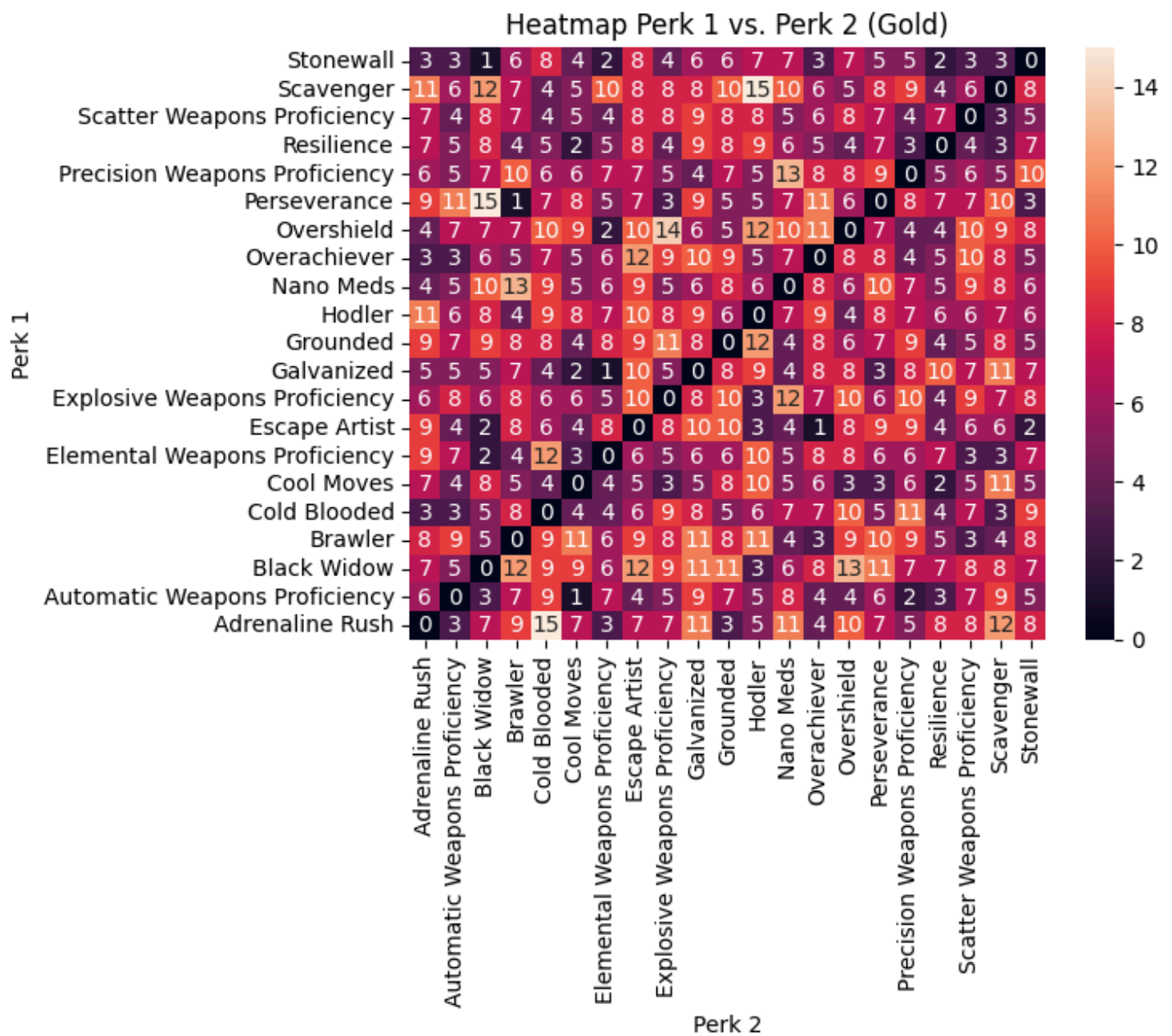
## Heatmap Perk 1 vs. Perk 2 (Silver)

display the amount of Silver NFTs with a certain perk 1 and certain perk 2



## Heatmap Perk 1 vs. Perk 2 (Gold)

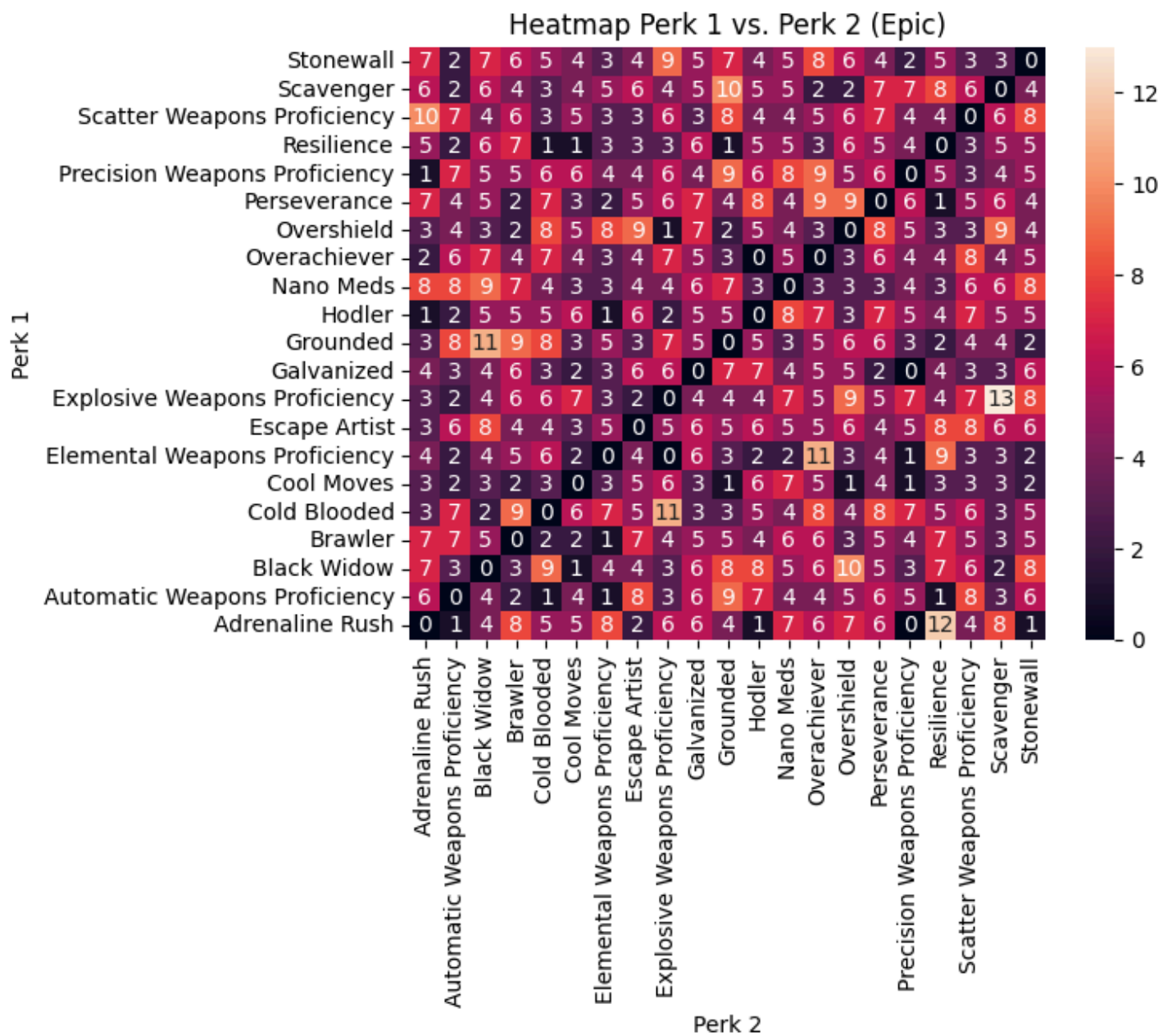
display the amount of Gold NFTs with a certain perk 1 and certain perk 2





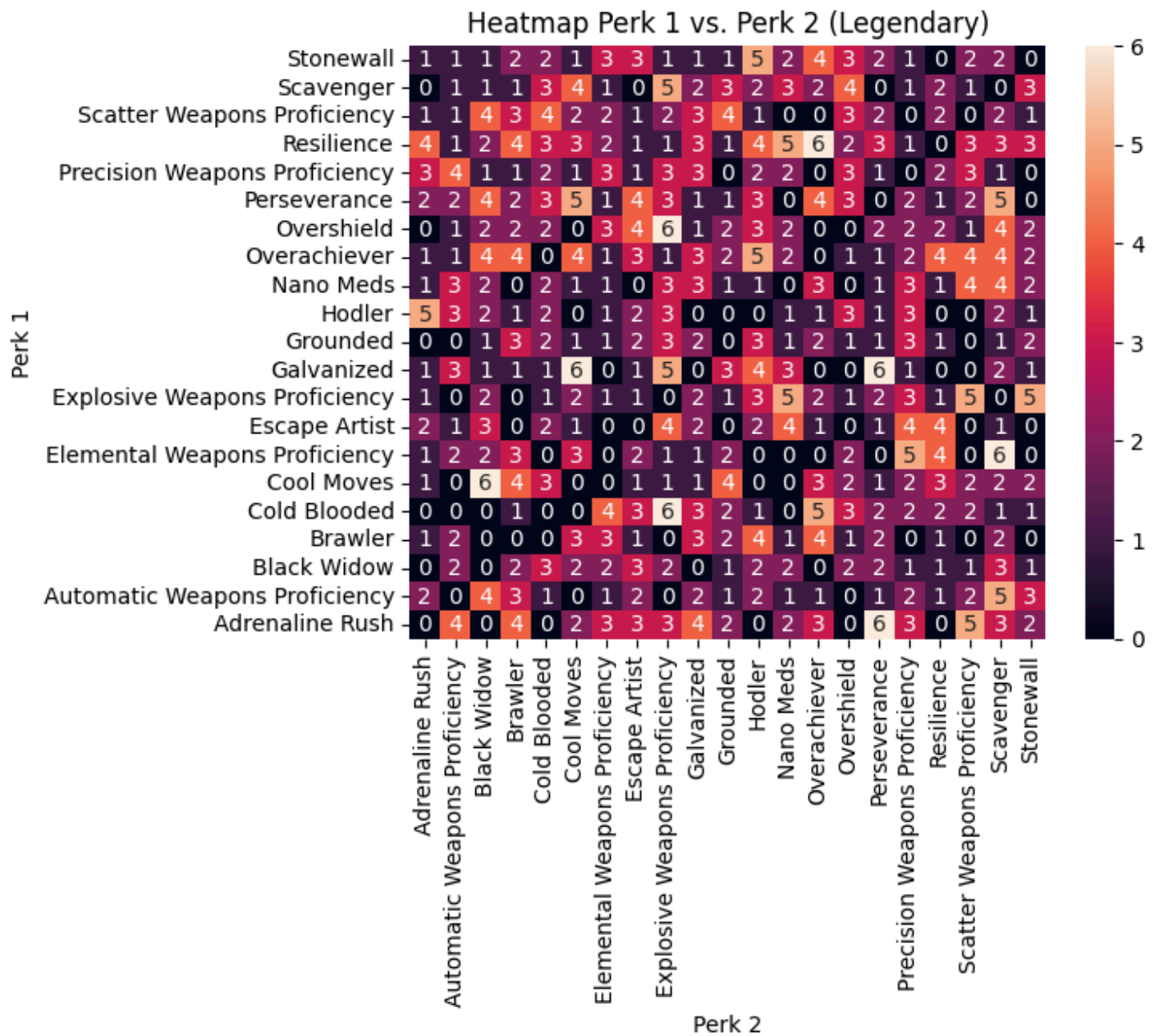
## Heatmap Perk 1 vs. Perk 2 (Epic)

display the amount of Epic NFTs with a certain perk 1 and certain perk 2



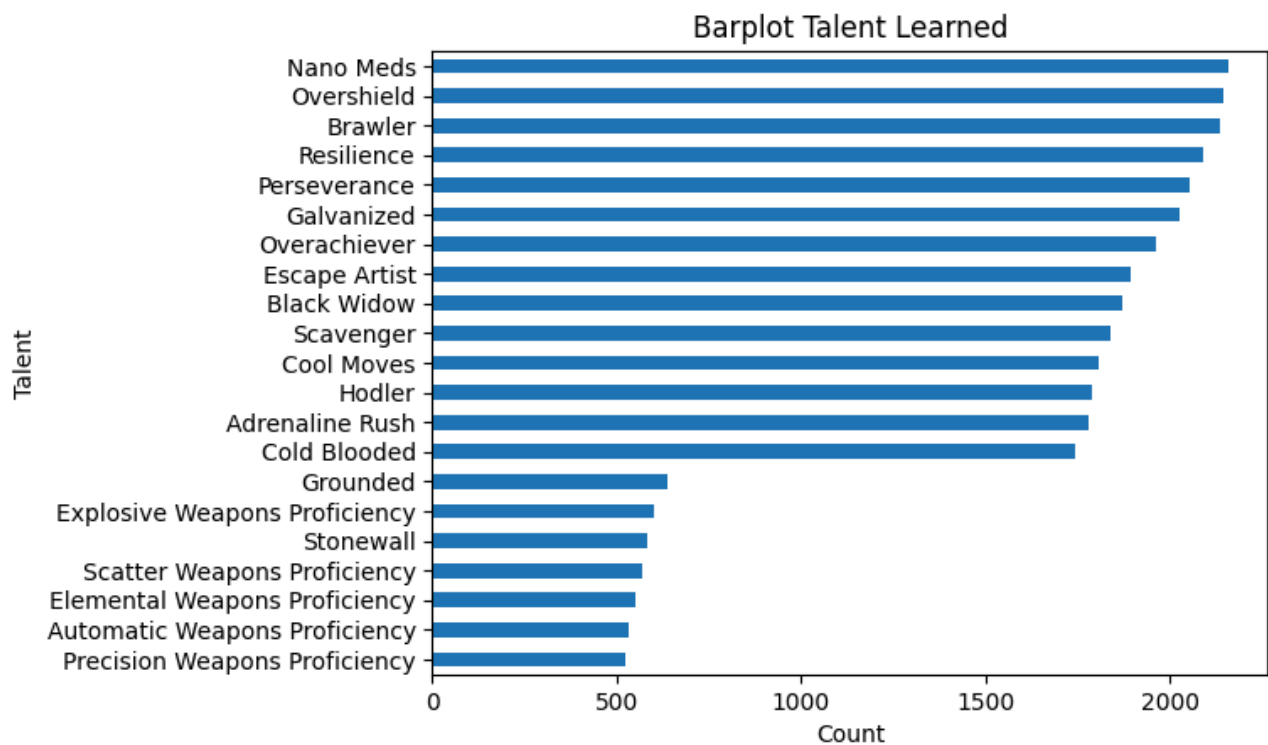
## Heatmap Perk 1 vs. Perk 2 (Legendary)

display the amount of Legendary NFTs with a certain perk 1 and certain perk 2



## Barplot Talent Learned

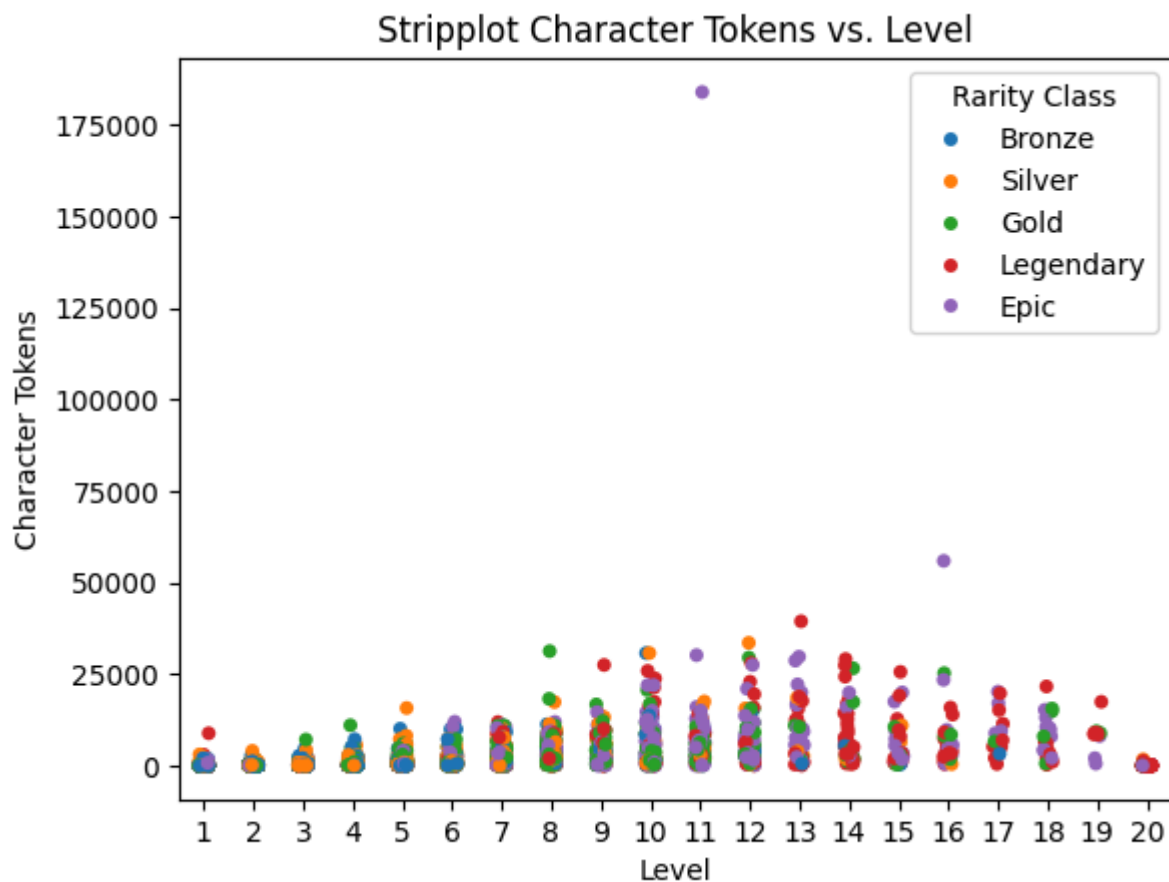
we plot the distribution of the talent learned in the game it does not matter the species as the talents are the same between species





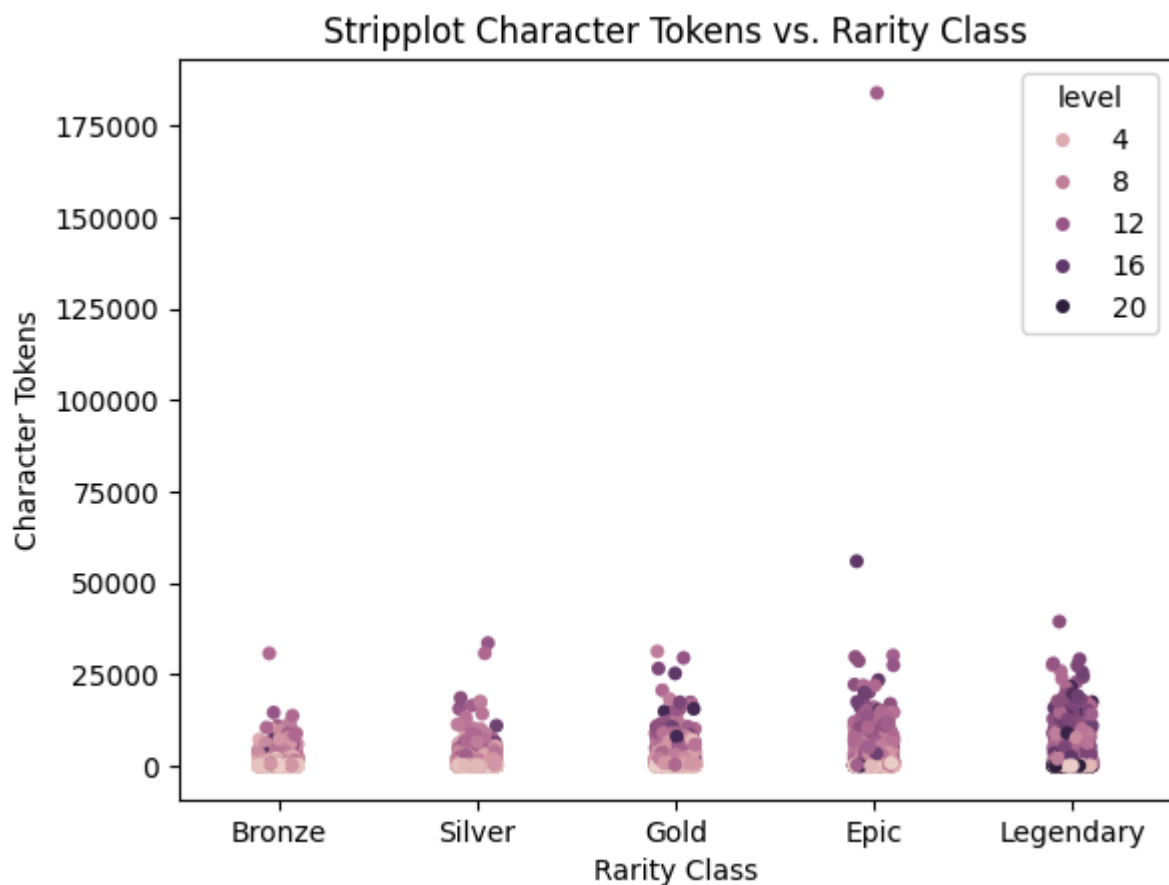
### Stripplot Character Tokens vs. Level

display the for each NFT the amount of his character tokens not used and his level  
each color is a different rarity class



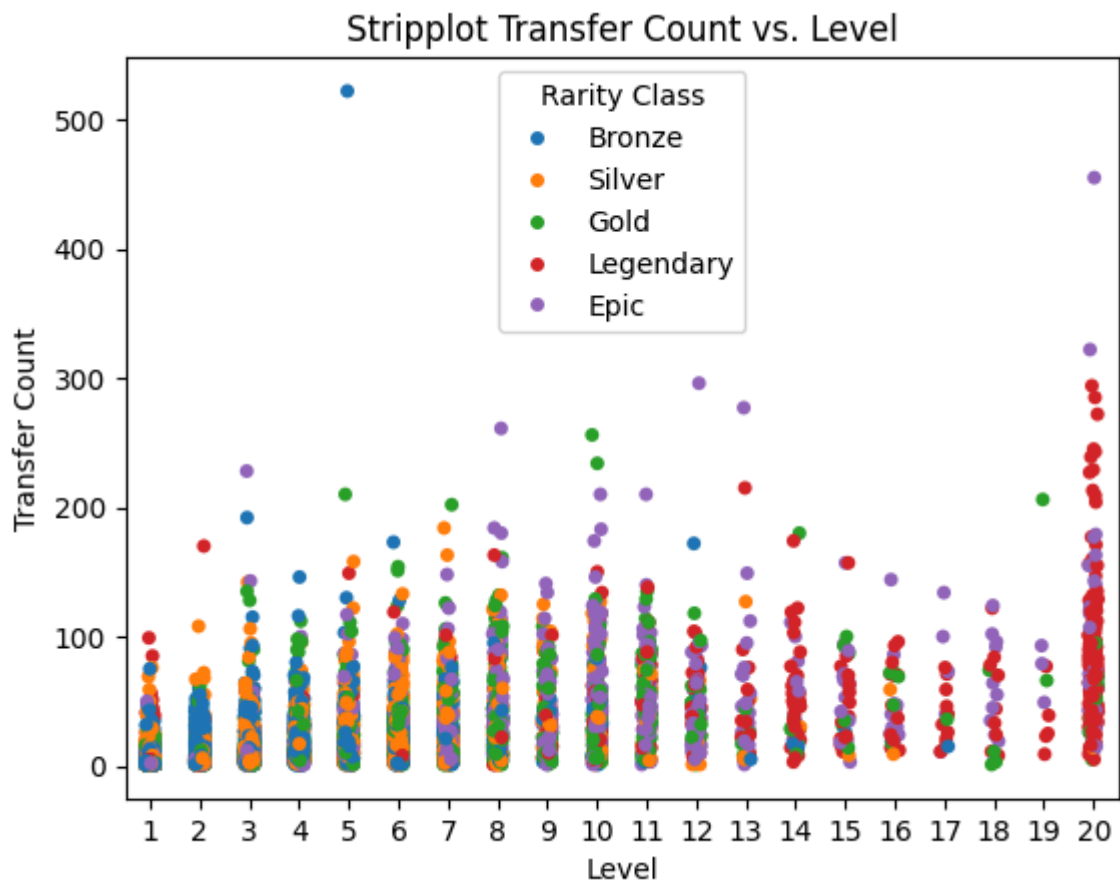
### Stripplot Character Tokens vs. Rarity Class

display the for each NFT the amount of his character tokens not used and his rarity class  
each color is a different level



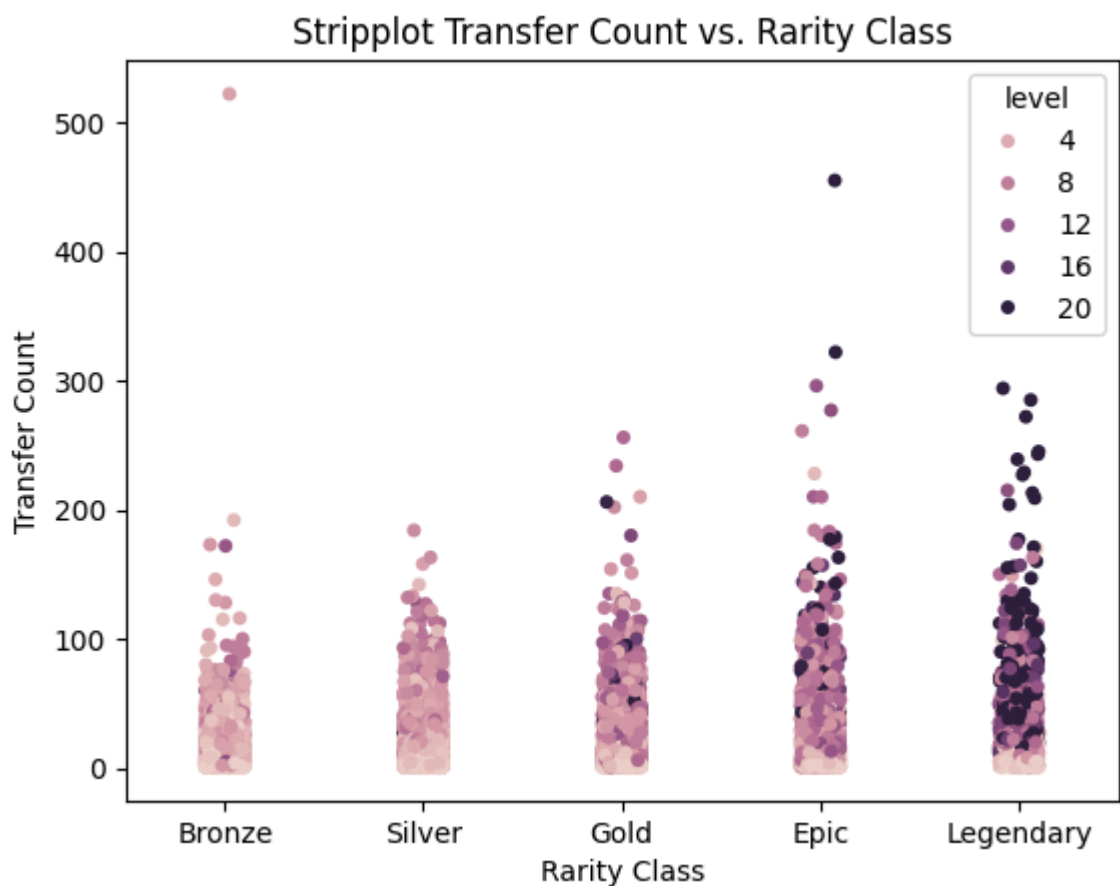
### Stripplot Transfer Count vs. Level

display the for each NFT the amount of transfers and his level  
each color is a different rarity class



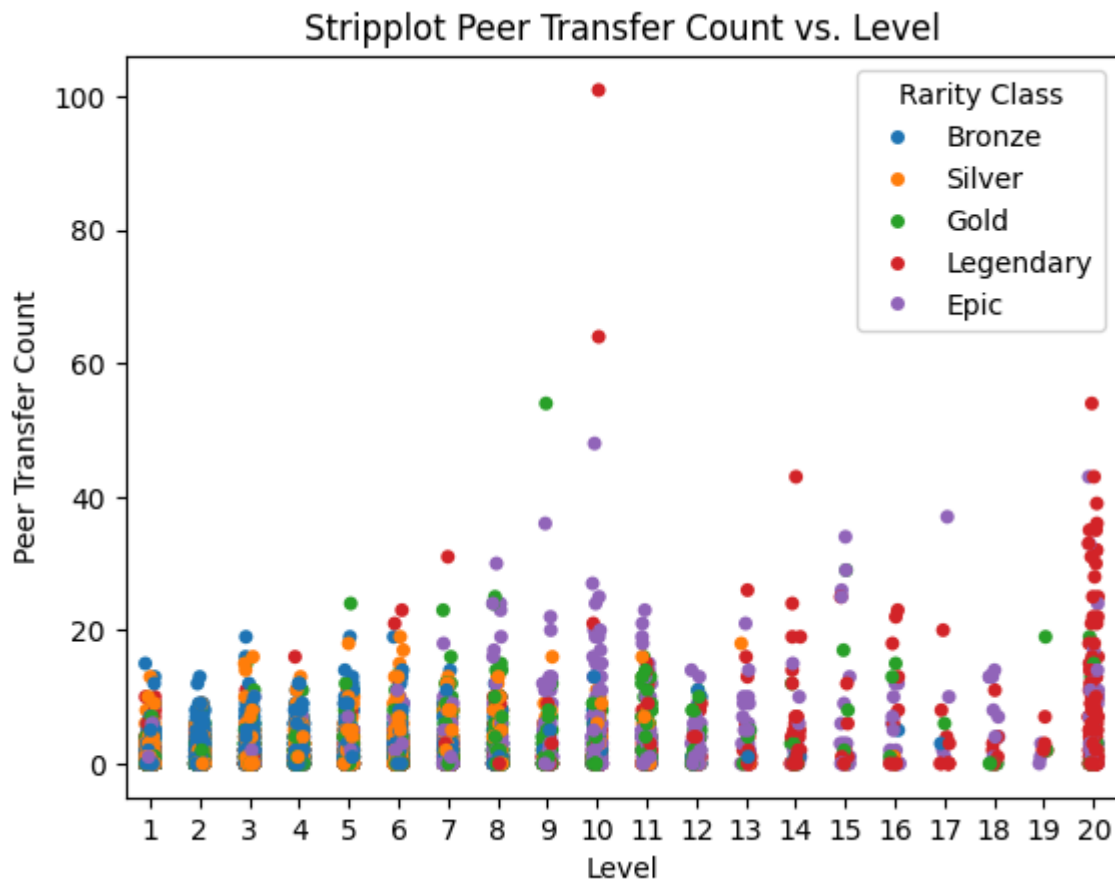
### Stripplot Transfer Count vs. Rarity Class

display the for each NFT the amount of transfers and his rarity class  
each color is a different level



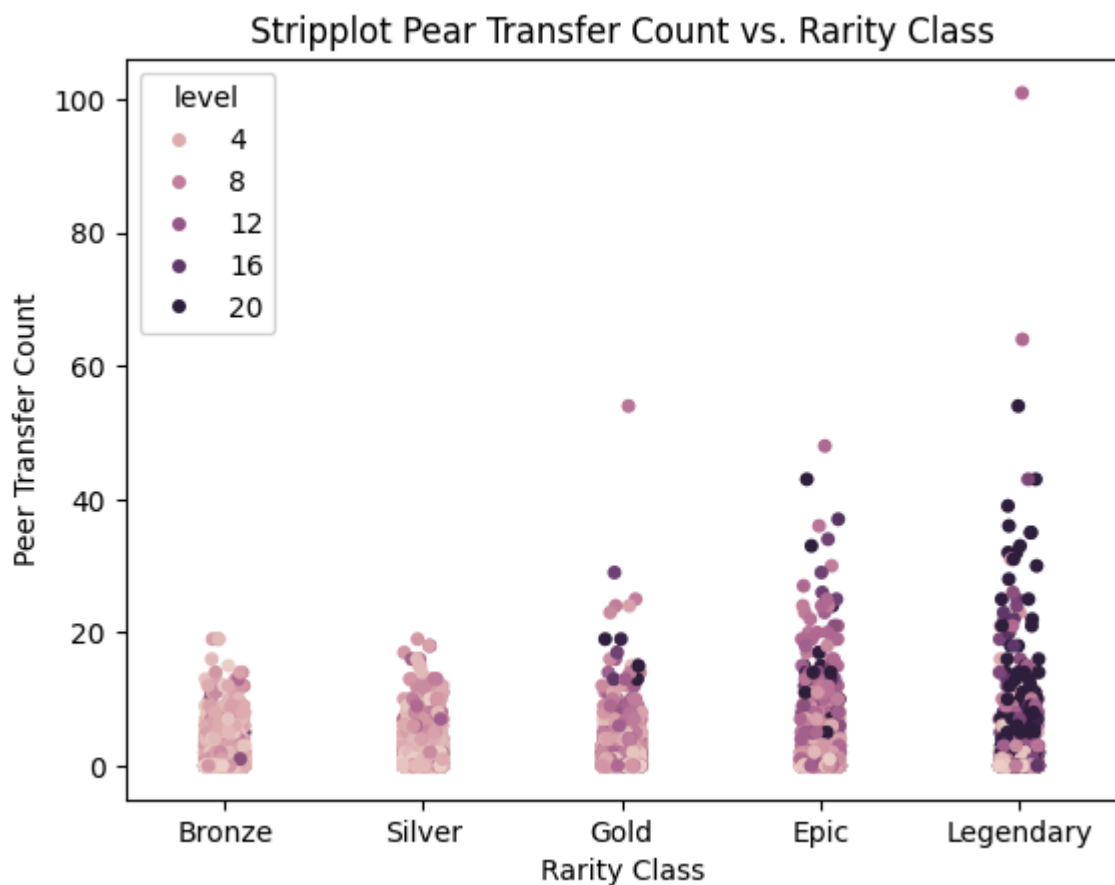
### Stripplot Peer Transfer Count vs. Level

display the for each NFT the amount of peer transfers and his level  
each color is a different rarity class



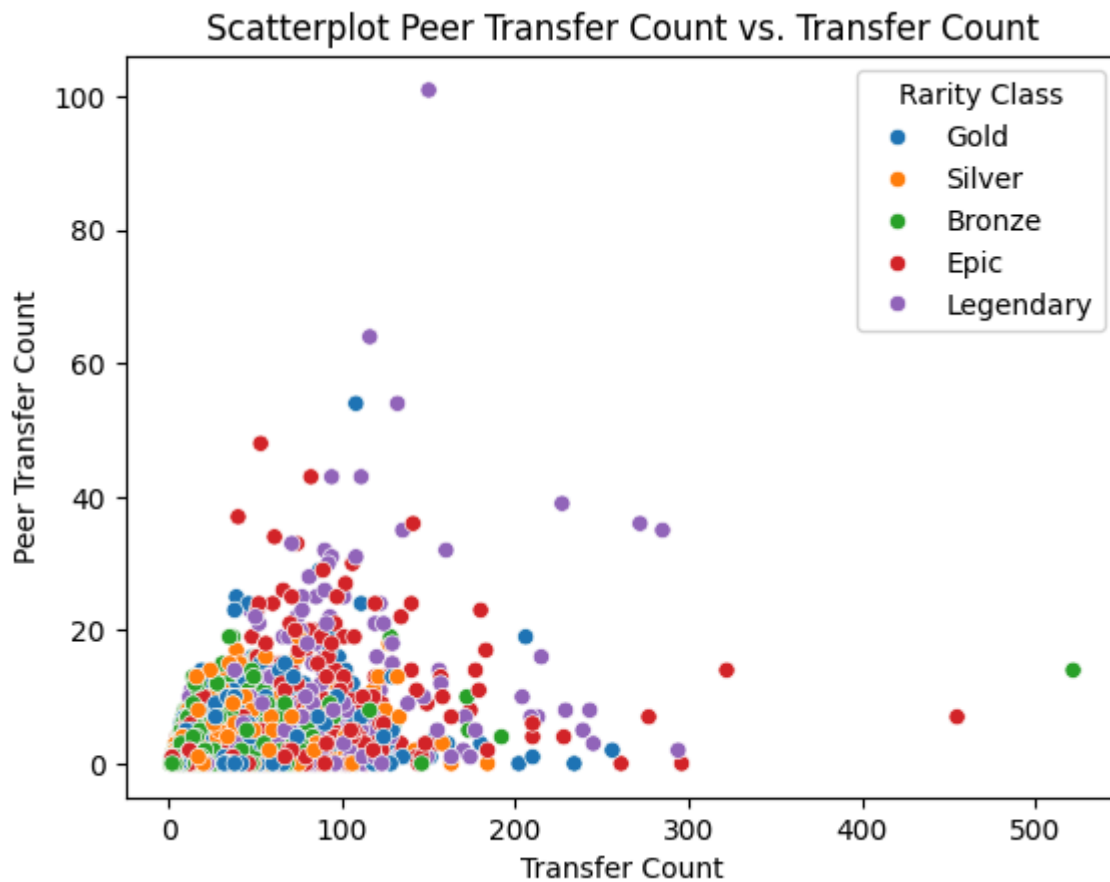
### Stripplot Peer Transfer Count vs. Rarity Class

display the for each NFT the amount of peer transfers and his rarity class  
each color is a different level



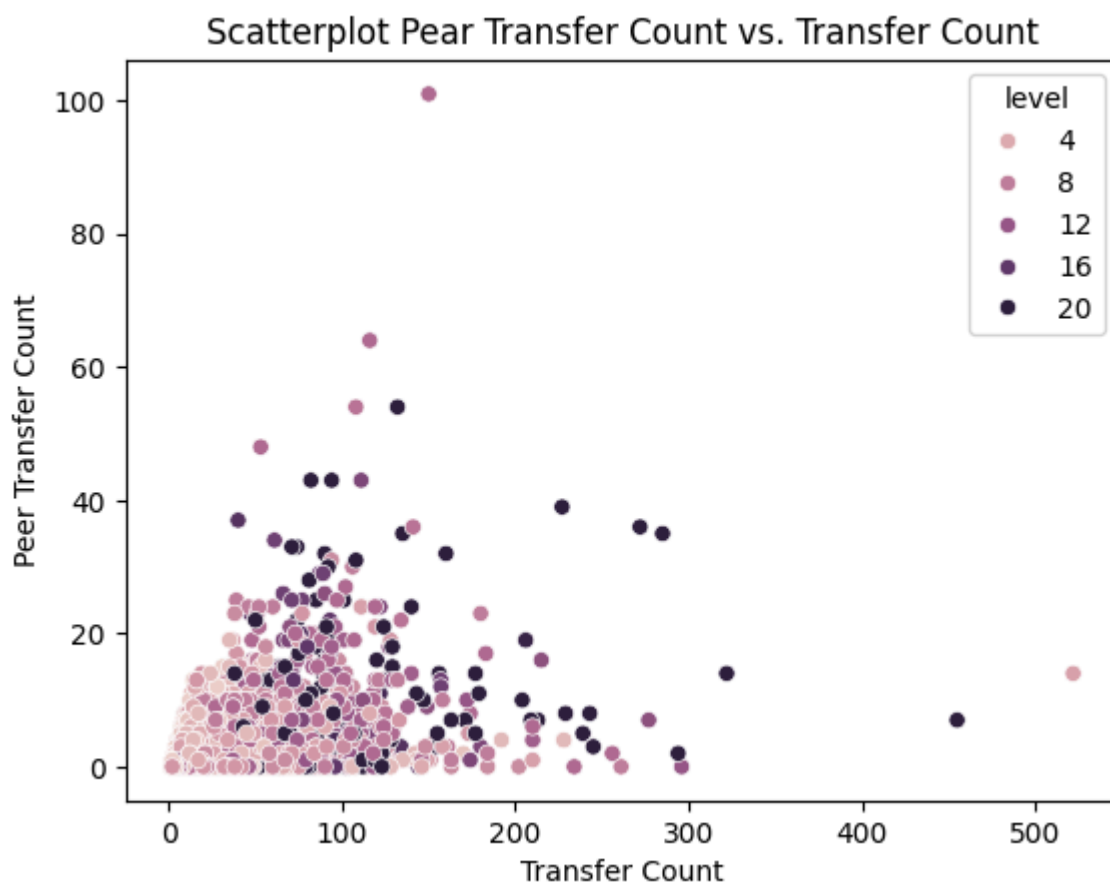
### Scatterplot Peer Transfer Count vs. Transfer Count

display the for each NFT the amount of peer transfers and the amount of all his transfers  
each color is a different rarity class



### Scatterplot Peer Transfer Count vs. Transfer Count

display the for each NFT the amount of peer transfers and the amount of all his transfers  
each color is a different level



### Type of Transactions

we show the amount of transactions for each type:

all transactions = success transactions + failed transactions

success transfer = success transactions involving the transfer of ownership of the NFT from one address to another

the percentage is over all transactions

Type of Transaction	Number of Transaction	Percentage
all transactions	326669	100.000000
success transactions	324401	99.305719
failed transactions	2268	0.694281
success transfers	239703	73.377945

### Transaction type distribution

Each transaction calls a specific function.

this is the table of functions called at least once and the number of transactions in which it was called and the percentage over all transactions

function	count	percentage
ESDTNFTTransfer	140317	42.953877
listing	68760	21.048829
directLend	58028	17.763547
listToken	31456	9.629319
addMultiOffer	8594	2.630798
auctionToken	5721	1.751314
MultiESDTNFTTransfer	5377	1.646009
nftSwap	2022	0.618975
acceptGlobalOffer	1867	0.571527
offer	884	0.270610
borrowEgld	786	0.240611
create	604	0.184897
lendNft	558	0.170815
declineOffer	483	0.147856
acceptOffer	445	0.136224
stakeNftFarm	240	0.073469
stakeFarm	119	0.036428
listNft	110	0.033673
sellBundle	102	0.031224
addBatchRewards	42	0.012857
returnNft	39	0.011939
pawn_nft	28	0.008571
pawn_nfts	20	0.006122
fund_nft	19	0.005816
createPool	16	0.004898
listNftOnMarketplace	15	0.004592
createOffer	10	0.003061
add_nft_for_sale	3	0.000918
editPool	2	0.000612
add_nft_for_auction	1	0.000306
list	1	0.000306

## Transfer to Contract Distribution

this is the table of contracts to which NFTs have been transferred and the number of transfers and the percentage over all transfers to contracts

contract address	count	percentage
erd1qqqqqqqqqqqqqqpgq0rkx70tmr3myr9uada9wez4kkymusw94a9rsn5y7tn	58176	53.692663
erd1qqqqqqqqqqqqqqpgq6weg52xkypfpync8mn2sa5cmpqjlvrhwz5nqgepyg8	40077	36.988463
erd1qqqqqqqqqqqqqqpgq8xwzu82v8ex3h4ayl5lsvxqxnhecpwyvwe0sf2qj4e	4416	4.075681
erd1qqqqqqqqqqqqqqpgqd9rvv2n378e27jcts8vfwynpx0gfl5ufz6hghfy0u0	2144	1.978772
erd1qqqqqqqqqqqqqqpgq705fxpfrjne0tl3ece0rrspykq88mynn4kxs2cg43s	1245	1.149054
erd1qqqqqqqqqqqqqqpgq47y8hnct68v6asjv6gxem6h9rumn9frzah0skhxxt6	710	0.655284
erd1qqqqqqqqqqqqqqpgqhpaufmx75nf4pwxh2fuy520ym03p8e8jcqt466up	433	0.399631
erd1qqqqqqqqqqqqqqpgqehfk86s8l949whpm7w80zp9j283hq2f3we0sfng5e7	390	0.359945
erd1qqqqqqqqqqqqqqpgqx00c5udg9uql5sgk5vswfr8cp7kalqgcyaq9xpw26	341	0.314721
erd1qqqqqqqqqqqqqqpgqqrqp626fvlvst33fhaklj0p223funnds28sua4g69	108	0.099677
erd1qqqqqqqqqqqqqqpgqytdhukwwqtrcptjs283falhqftwht7pps28sfcskls	84	0.077527
erd1qqqqqqqqqqqqqqpgqz2tgn80j5p5hqh4hx69uc27gz0drcjmmg20skf0wru	83	0.076604
erd1qqqqqqqqqqqqqqpgqf92y7l5guqyeym23uhaw8ms5r2zg0gym7vrs7074pq	33	0.030457
erd1qqqqqqqqqqqqqqpgqm3e5eagawwx742ktx96j6x00s6w2emzra9rsgcrjm7	31	0.028611
erd1qqqqqqqqqqqqqqpgq3w9lvasvuhkupfef299lt55gkxp8wzfzncs34f5nj	19	0.017536
erd1qqqqqqqqqqqqqqpgq3v7uj2xc49vtg0r544n5ewkgymkd7umls28stywa3j	18	0.016613
erd1qqqqqqqqqqqqqqpgqvegsel8c794v8jzqfdmms0q7tpfxt9dwuyasxu840v	10	0.009229
erd1qqqqqqqqqqqqqqpgqx54p2ltm89jjupmxlcqcp8jpehe8jxcxuhqsf3zw30	9	0.008306
erd1qqqqqqqqqqqqqqpgq0erzpydzvy5unmj7867vaapddpc870x44qvqe209k4	7	0.006461
erd1qqqqqqqqqqqqqqpgqpt68cy4cde6ff2wzcfstfncjv6gxjxda8dn7q9ekje9	4	0.003692
erd1qqqqqqqqqqqqqqpgqx9z6qw9ekttwp2d2h9tvq36ucdlp985035ds9qhmxm	4	0.003692
erd1qqqqqqqqqqqqqqpgqy63d2wjymqergsxugu9p8tayp970gy6zlwfq8n6ruf	3	0.002769
erd1qqqqqqqqqqqqqqpgq3h75cy6h0de54ea3lyxcwz20e34qtjg6s5stxgry3	2	0.001846
erd1qqqqqqqqqqqqqqpgqu7mfca6kzxfl4g9j2a55mchswasaulghl3tseqeyh3	1	0.000923
erd1qqqqqqqqqqqqqqpgq2p098xl7t4qcd99556nq3w438j0s6ypxuk2qn65cjj	1	0.000923
erd1qqqqqqqqqqqqqqpgq7gknct222ysujyx2j3lrd0hpuc7zcfia8pgqtz7prm	1	0.000923

## Transfer from Contract Distribution

this is the table of contracts from which NFTs have been transferred and the number of transfers and the percentage over all transfers from contracts

contract address	count	percentage
erd1qqqqqqqqqqqqqqpgq0rkx70tmr3myr9uada9wez4kkymusw94a9rsn5y7tn	47592	42.116069
erd1qqqqqqqqqqqqqqpgq6wews2xkypfpync8mn2sa5cmpqjlvrhwz5nqgepyg8	39232	34.717970
erd1qqqqqqqqqqqqqqpgq9t4l4rm2fr9h4fv05u2ld5eh99a7hlmu9rsfp78gp	14166	12.536061
erd1qqqqqqqqqqqqqqpgq8xwzu82v8ex3h4ayl5lsvxqxnhecpwyvwe0sf2qj4e	4410	3.902586
erd1qqqqqqqqqqqqqqpgqd9rvv2n378e27jcts8vfwynpx0gfl5ufz6hqhfy0u0	2097	1.855719
erd1qqqqqqqqqqqqqqpgqmrzzclpr9qpzh6rz3l75q7mtnz9t6qcu9rsvjufnz	2043	1.807933
erd1qqqqqqqqqqqqqqpgq705fxpfrjne0tl3ece0rrspykq88mynn4kxs2cg43s	1219	1.078742
erd1qqqqqqqqqqqqqqpgq47y8hnc68v6asjv6gxem6h9rumn9frzah0skhxxt6	708	0.626538
erd1qqqqqqqqqqqqqqpgqhpauarfm75nf4pwxh2fuy520ym03p8e8jcqt466up	431	0.381409
erd1qqqqqqqqqqqqqqpgqehfk86s8l949whpm7w80zp9j283hq2f3we0sfng5e7	372	0.329198
erd1qqqqqqqqqqqqqqpgqx00c5udg9uql5sgk5vswfr8cp7kalqgcyaqw9xpw26	337	0.298225
erd1qqqqqqqqqqqqqqpgqqrqp626fvlvst33fhaklj0p223funnds28sua4g69	97	0.085839
erd1qqqqqqqqqqqqqqpgqz2tgn80j5p5hqh4hx69uc27gz0drcjmmg20skf0wru	81	0.071680
erd1qqqqqqqqqqqqqqpgqytdhukwwqtrcptjs283falhqftwht7pps28sfcskls	81	0.071680
erd1qqqqqqqqqqqqqqpggf92y7l5guqyeym23uhaw8ms5r2zg0gym7vrs7074pq	32	0.028318
erd1qqqqqqqqqqqqqqpgqm3e5eagawwx742ktx96j6x00s6w2emzra9rsgcrjm7	31	0.027433
erd1qqqqqqqqqqqqqqpgq3w9lvasvuhkupfef299lt55gkxp8wzfzncs34f5nj	19	0.016814
erd1qqqqqqqqqqqqqqpgq3v7uj2xc49vtg0r544n5ewkgymkd7umls28stywa3j	18	0.015929
erd1qqqqqqqqqqqqqqpgqvegsel8c794v8jzqfdmms0q7tpfxt9dwuyasxu840v	10	0.008849
erd1qqqqqqqqqqqqqqpgq0erzpydzvy5unmj7867vaapddpc870x44qvqe209k4	7	0.006195
erd1qqqqqqqqqqqqqqpgqx54p2ltm89jjupmxlcqcp8jpehe8jxcxuhqsf3zw30	5	0.004425
erd1qqqqqqqqqqqqqqpgqpt68cy4cde6ff2wzcfstfncjv6gxjxda8dn7q9ekje9	4	0.003540
erd1qqqqqqqqqqqqqqpgqx9z6qw9ekttwp2d2h9tvq36ucdlp985035ds9qhmxm	4	0.003540
erd1qqqqqqqqqqqqqqpgqy63d2wjymqergsxugu9p8tayp970gy6zlwfq8n6ruf	3	0.002655
erd1qqqqqqqqqqqqqqpgqu7mfca6kzxf4g9j2a55mchswasaulghl3tseqeyh3	1	0.000885
erd1qqqqqqqqqqqqqqpgq2p098xl7t4qcd99556nq3w438j0s6ypxuk2qn65cjj	1	0.000885
erd1qqqqqqqqqqqqqqpgq7gknct222ysujyx2j3lrd0hpuc7zcf8a8pgqtz7prm	1	0.000885



## Holders Distribution

this is the table of holders and the number of NFTs owned by them and the percentage over all NFTs (spreadsheets "holders")

we currently have a total of 2672 different addresses that own at least one NFT

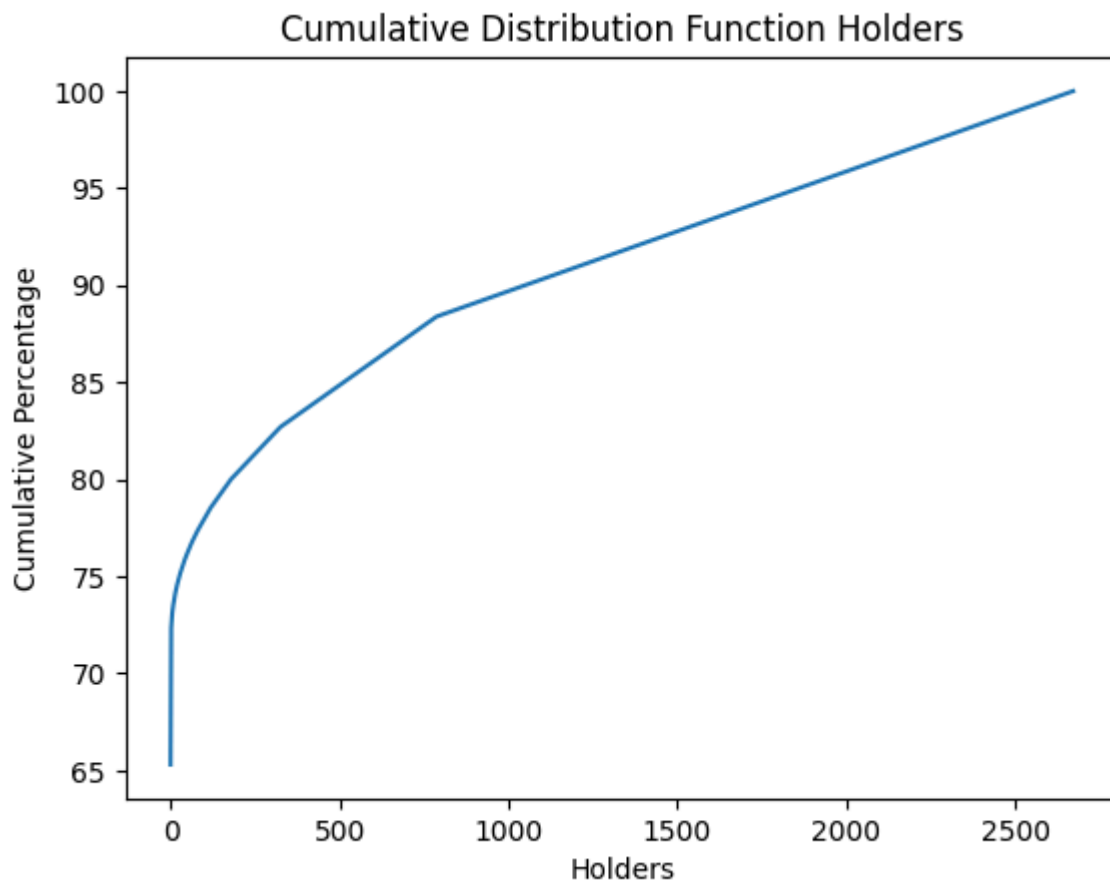
following a table that show how many holders owns a date number of NFTs

for example we have 1886 addresses that own 1 single NFT and 1 single address that owns 10584 NFTs

nft_owned	number_holders
1	1886
2	462
3	147
4	60
5	40
6	17
7	15
8	8
9	7
10	6
11	4
18	3
15	2
14	2
12	2
13	1
16	1
17	1
22	1
26	1
28	1
47	1
51	1
295	1
845	1
10584	1

### Cumulative Distribution Function Holders

this plot show how many amount of holders own a certain amount of percentage of all NFTs  
for example a single holder owns ~65% of total amount of NFTs and a ~10% is owned by  
~3000 different holders



### EOA Holders Distribution

this is the table of EOA holders and the number of NFTs owned by them and the percentage over all NFTs (spreadsheets "EOA\_holders")

we currently have a total of 5466 different addresses that own at least one NFT

following a table that show how many holders owns a date number of NFTs

for example we have 3057 addresses that own 1 single NFT and 1 single address that owns 295 NFTs

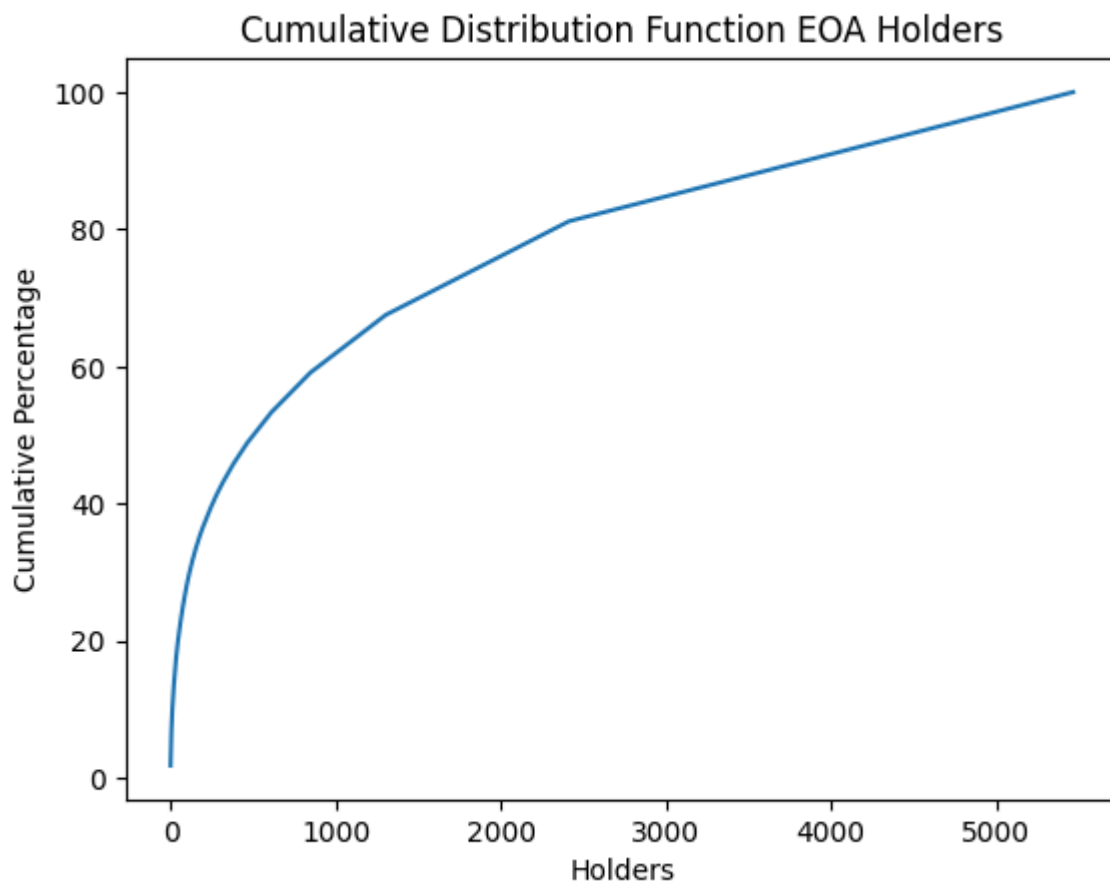
nft_owned	number_holders
1	3057
2	1111
3	457
4	238
5	146
6	84
7	67
8	39
9	37
10	35
12	19
11	16
14	13

16	11
15	10
13	9
17	8
21	8
23	7
28	6
29	6
18	5
20	5
22	5
19	4
24	4
31	3
50	3
48	3
32	3
33	3
26	3
25	3
47	2
65	2
38	2
40	2
41	2
60	2
27	2
119	1
86	1
104	1
111	1
30	1
72	1
125	1
129	1
146	1
183	1
197	1
74	1
59	1
69	1
67	1
56	1
54	1
51	1
45	1
44	1
42	1
37	1
35	1
295	1

### Cumulative Distribution Function EOA Holders

this plot show how many amount of EOA holders own a certain amount of percentage of all NFTs

for example ~1000 EOA holder owns ~60% of total amount of NFTs and a ~20% is owned by ~3000 different holders



### NFTs in Diamond Hand

this the table shows the number of NFTs that have had a specific number of different EOA holders

for example 6916 NFTs (~42%) in their history have had only one EOA holder each

for example 14106 NFTs (~87%) in their history have had less than 5 EOA holders each

number of different holders	number of nfts	percentage
1	6916	42.667654
2	3759	23.190820
3	2065	12.739836
4	1366	8.427417
5	901	5.558640
6	517	3.189586
7	300	1.850824
8	168	1.036461
9	98	0.604602

10	50	0.308471
11	33	0.203591
12	17	0.104880
13	7	0.043186
14	5	0.030847
15	2	0.012339
16	1	0.006169
17	1	0.006169
18	1	0.006169
19	2	0.012339

### **All holders**

this is the table of all holders and the number of NFTs owned by them and the percentage over all NFTs (spreadsheets "all\_holders")

we currently have a total of 11254 different addresses that have owned at least one NFT

the EOA holders that currently own at least one NFT are 5466

the EOA holders that currently doesn't own at least one NFT are 5760

the EOA holders that currently own at least one NFT in contracts are 3214 (NFT amount 11557)

the EOA holders that currently own all their NFTs in contracts are 2809 (NFT amount 8948)

the EOA holders that currently own at least one NFT in their wallet are 2657 (NFT amount 4652 in their wallet)

the EOA holders that currently own all their NFTs in their wallet are 2252 (NFT amount 3774 in their wallet)

the EOA holders that currently own at least one NFT in contracts and at least one NFT in their wallet are 2524 (NFT amount in contract 4489, NFT amount in their wallet 6935)

### **Peer to Peer Transfers**

this is the table of addresses and the number of addresses with which they have made peer to peer transfers (incoming or outgoing), that means without the use of intermediaries (contracts) (spreadsheets "peer2peer")

we currently have a total of 4913 different addresses that have made at least one peer to peer transfer

6% of all addresses that do peer to peer transfers with other addresses do transfers with more than 5 different addresses

this 6% consists of 302 addresses

## TODO

# MISSING SCATTER PLOT THAT EACH ADDRESS IS A DOT AND ON THE Y'S IS THE NUMBER OF PEER TO PEER TRANSACTIONS HE WAS INVOLVED IN AS SENDER OR RECEIVER

# AND ON THE X'S THE NUMBER OF ADDRESSES HE HAS DONE PEER TO PEER TRANSACTIONS WITH

# SAME THING FOR NON-PEER TO PEER

# MISSING SCATTER PLOT THAT EACH ADDRESS IS A DOT AND ON THE Y'S IS THE NUMBER OF PEER TO PEER TRANSACTIONS HE WAS INVOLVED IN AS SENDER OR RECEIVER

# AND ON THE X'S THE NUMBER OF NON-PEER TO PEER TRANSACTIONS HE WAS INVOLVED IN AS SENDER OR RECEIVER

# SAME THING FOR NON-PEER TO PEER

# miss to study better the transfer graph to analyze the communities carrying out peer to peer exchanges and other notable after transfer graph analysis