

```
import pandas as pd
```

```
df = pd.read_csv('genomes.insect.for_graph.230705.tab', sep='\t', header=None)
df.columns = ['TaxonID', 'Species', 'sp', 'Genus', 'Family', 'Order', 'Phylum', 'GenomeSize']
```

```
df
```

	TaxonID	Species	sp	Genus	Family	Order	Phylum	GenomeSize	edit
0	2614024	Abisara bifasciata	NaN	Abisara	Riodinidae	Lepidoptera	Insecta	332.7420	
1	938171	Abrostola tripartita	NaN	Abrostola	Noctuidae	Lepidoptera	Insecta	381.0570	
2	254365	Abrostola triplasia	NaN	Abrostola	Noctuidae	Lepidoptera	Insecta	362.7230	
3	2069292	Abscondita terminalis	NaN	Abscondita	Lampyridae	Coleoptera	Insecta	499.6530	
4	200917	Acanthoscelides obtectus	NaN	Acanthoscelides	Chrysomelidae	Coleoptera	Insecta	2206.6600	
...
2211	509524	Zopyrion sandace	NaN	Zopyrion	Hesperiidae	Lepidoptera	Insecta	243.6370	
2212	287375	Zygaena filipendulae	NaN	Zygaena	Zygaenidae	Lepidoptera	Insecta	365.9460	
2213	265461	unclassified Diptera	NaN	NaN	NaN	Diptera	Insecta	43.7685	
2214	305611	unclassified Sarcophagidae	NaN	NaN	Sarcophagidae	Diptera	Insecta	494.5810	
2215	1577619	unclassified Trichoceridae	NaN	NaN	Trichoceridae	Diptera	Insecta	41.7116	

2216 rows × 8 columns

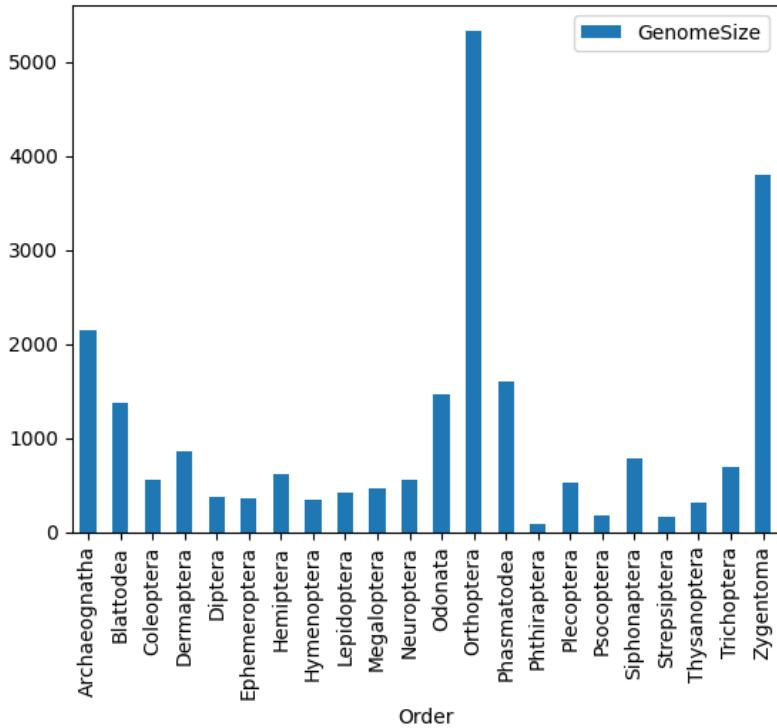
```
import matplotlib.pyplot as plt
import seaborn as sns
```

```
sns.countplot(x= 'Order', data = df, order = df['Order'].value_counts().index, log=True)
plt.xticks(rotation=90)
```

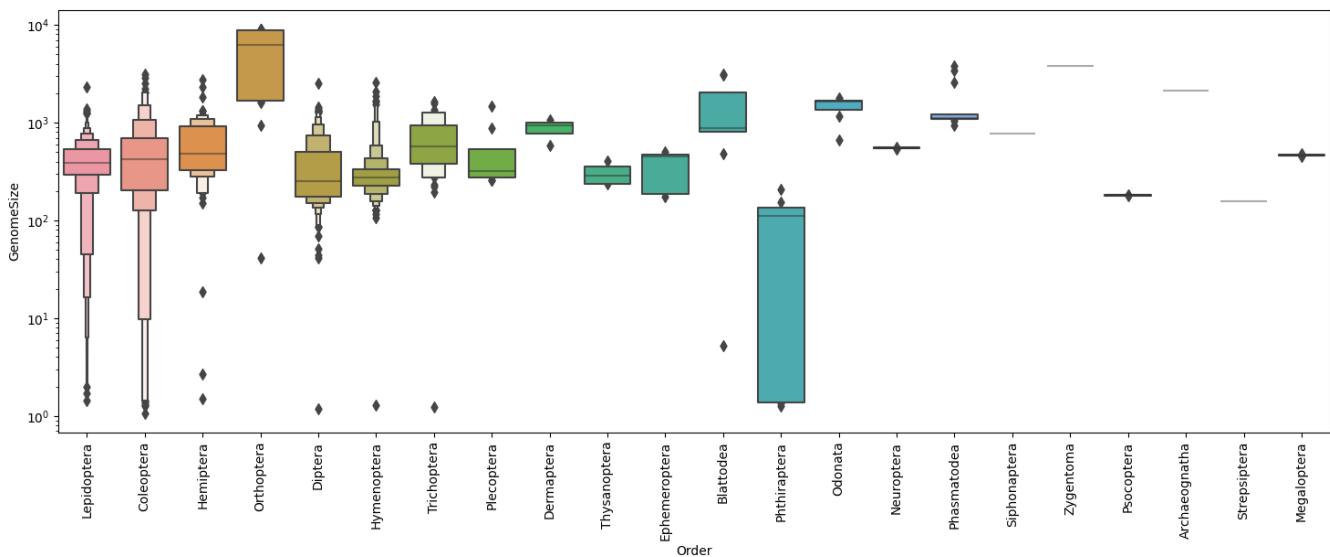
```
(array([ 0,  1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11, 12, 13, 14, 15, 16,
       17, 18, 19, 20, 21]),
[Text(0, 0, 'Lepidoptera'),
Text(1, 0, 'Diptera'),
Text(2, 0, 'Hymenoptera'),
Text(3, 0, 'Coleoptera'),
Text(4, 0, 'Hemiptera'),
Text(5, 0, 'Trichoptera'),
Text(6, 0, 'Orthoptera'),
Text(7, 0, 'Phasmatodea'),
Text(8, 0, 'Odonata'),
Text(9, 0, 'Blattodea'),
Text(10, 0, 'Plecoptera'),
Text(11, 0, 'Phthiraptera'), ..
```

```
df_grouped = df.groupby('Order')
df_grouped.mean('GenomeSize').plot.bar(y='GenomeSize')
```

<Axes: xlabel='Order'>



```
fig, ax= plt.subplots(figsize=(18, 6))
sns.boxenplot(x= 'Order', y='GenomeSize', data = df)
ax.set_yscale('log')
plt.xticks(rotation=90)
plt.show()
```



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