In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:
```
yoo=sns.load_dataset("tips")
yoo
```

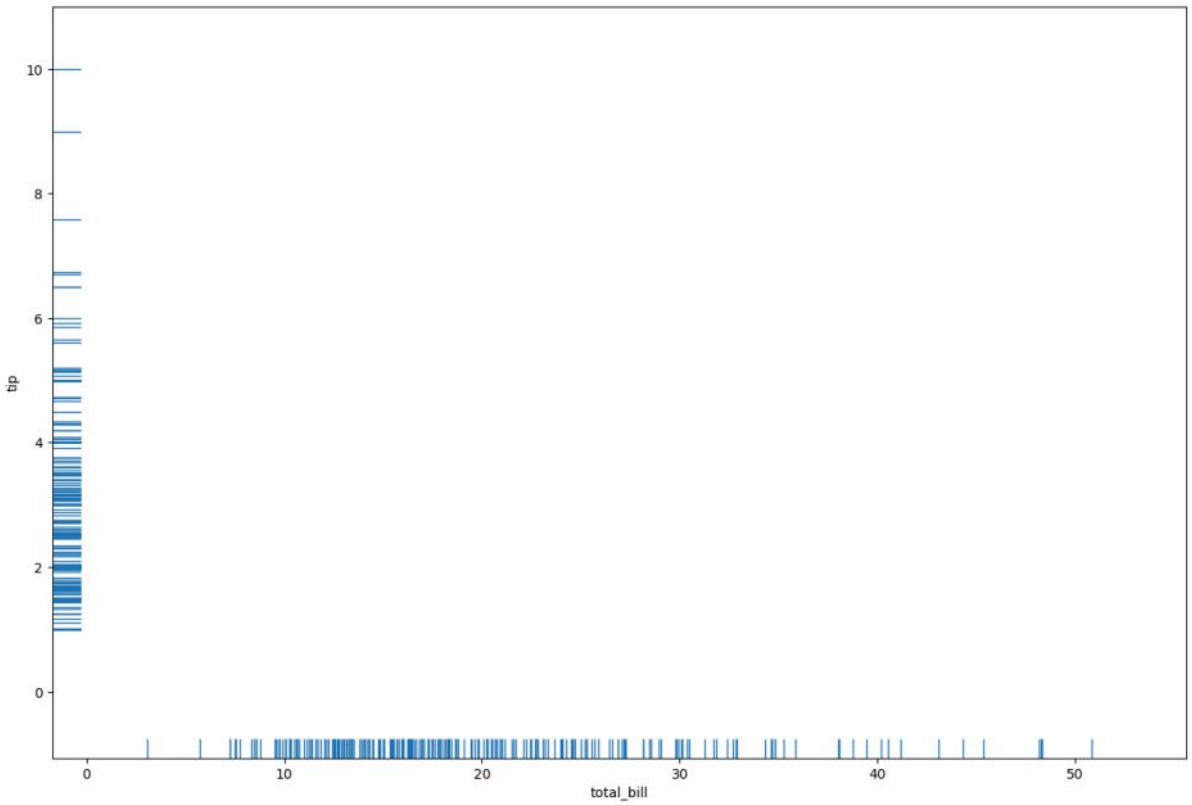
Out[2]:

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4
...	...	...	...	...	...	...	...
239	29.03	5.92	Male	No	Sat	Dinner	3
240	27.18	2.00	Female	Yes	Sat	Dinner	2
241	22.67	2.00	Male	Yes	Sat	Dinner	2
242	17.82	1.75	Male	No	Sat	Dinner	2
243	18.78	3.00	Female	No	Thur	Dinner	2

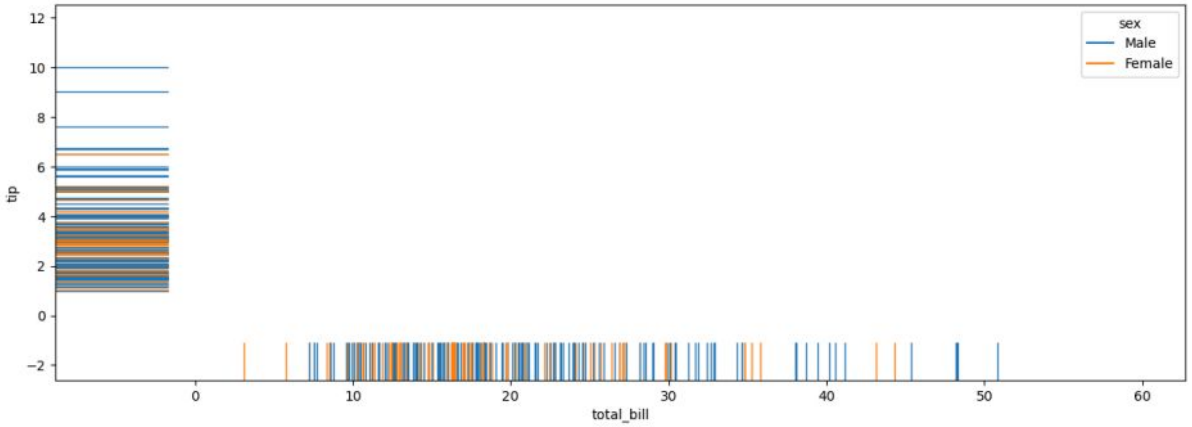
244 rows × 7 columns

RUG PLOT

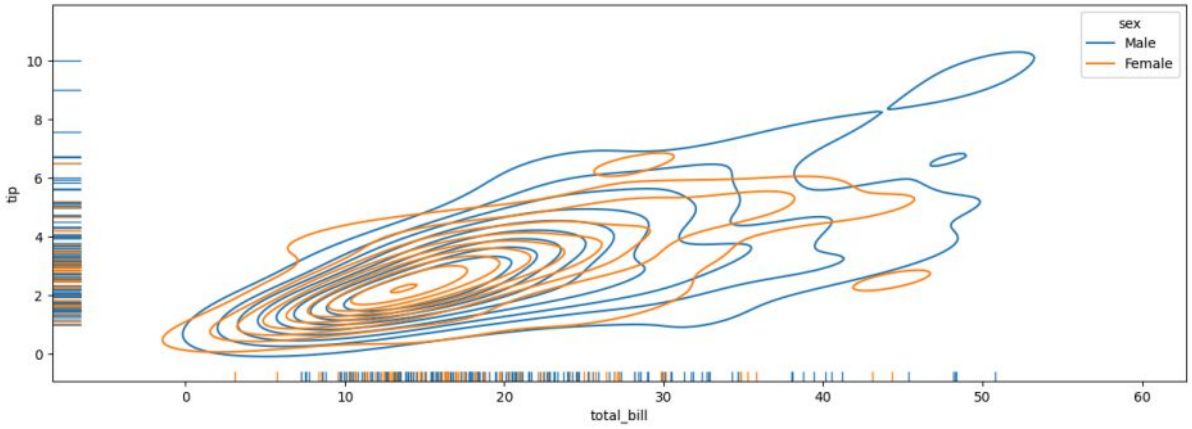
In [8]:
```
plt.figure(figsize=(15,10))
sns.rugplot(x="total_bill",y="tip",data=yoo)
plt.show()
```



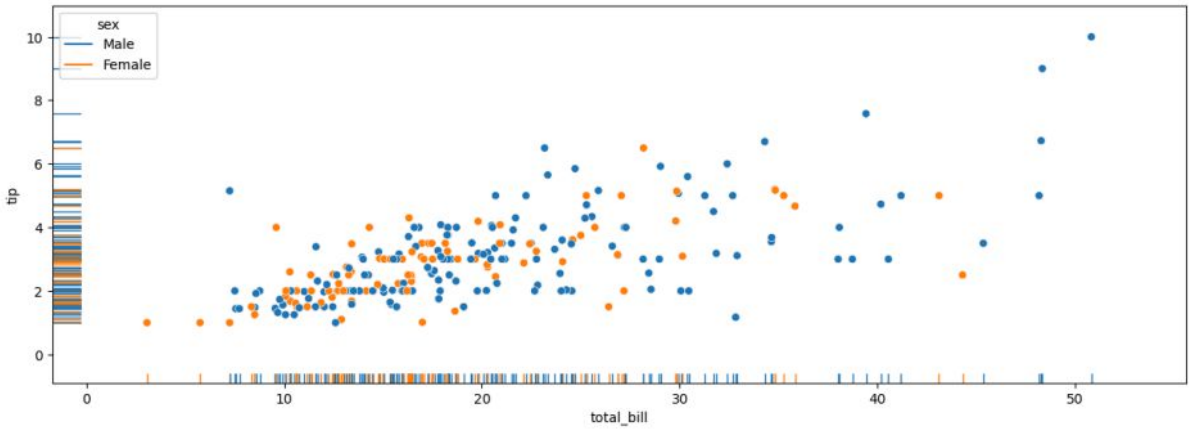
In [11]:
```
plt.figure(figsize=(15,5))
sns.rugplot(x="total_bill",y="tip",data=yoo,hue="sex",height=0.1)
plt.show()
```



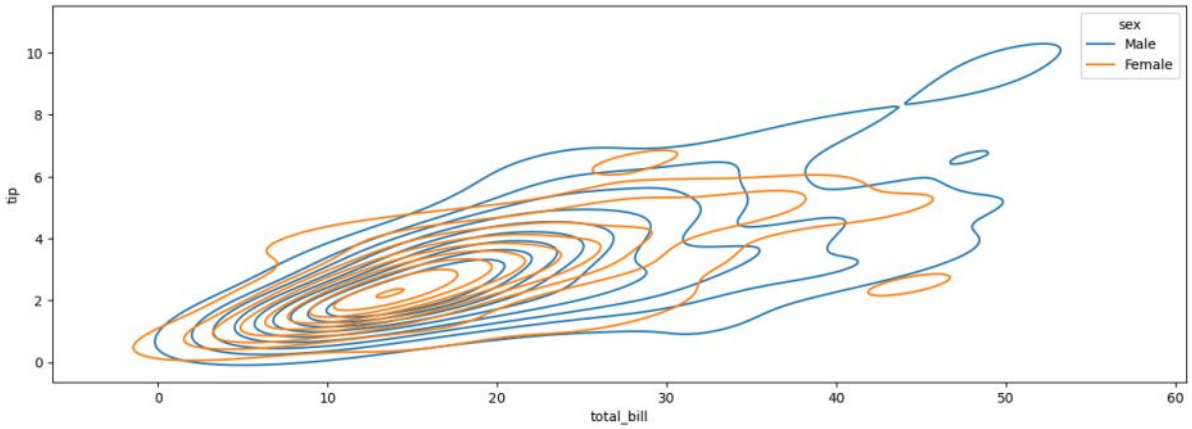
In [12]:
```
plt.figure(figsize=(15,5))
sns.kdeplot(x="total_bill",y="tip",data=yoo,hue="sex")
sns.rugplot(x="total_bill",y="tip",data=yoo,hue="sex")
plt.show()
```



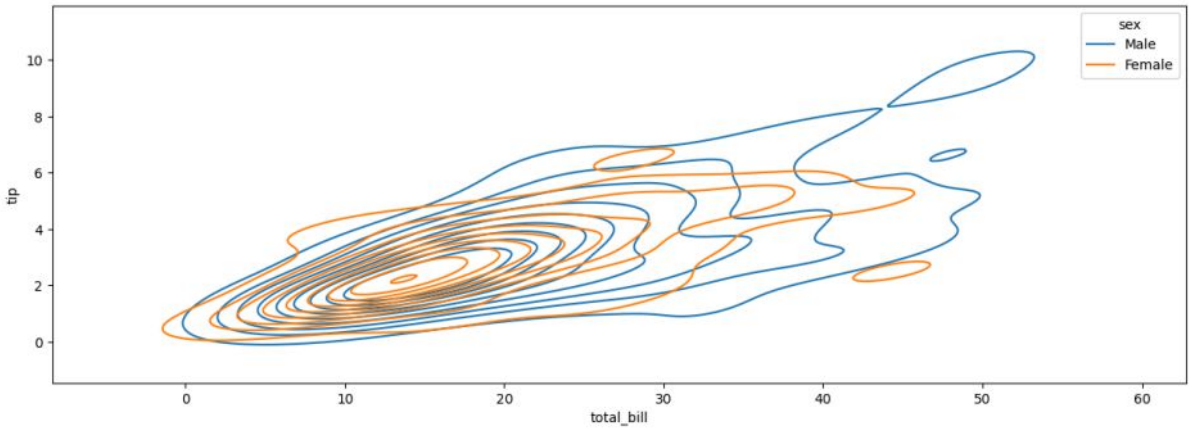
In [14]:
```
plt.figure(figsize=(15,5))
sns.scatterplot(x="total_bill",y="tip",data=yoo,hue="sex")
sns.rugplot(x="total_bill",y="tip",data=yoo,hue="sex")
plt.show()
```



In [16]:
```
plt.figure(figsize=(15,5))
sns.kdeplot(x="total_bill",y="tip",data=yoo,hue="sex")
sns.rugplot(x="total_bill",y="tip",data=yoo,hue="sex",height=-0.04)
plt.show()
```



In [17]:
```
plt.figure(figsize=(15,5))
sns.kdeplot(x="total_bill",y="tip",data=yoo,hue="sex")
sns.rugplot(x="total_bill",y="tip",data=yoo,hue="sex",height=-0.01)
plt.show()
```



ECDF PLOT

In [26]:
```
penguins = sns.load_dataset("penguins")
```

In [28]:
```
penguins
```

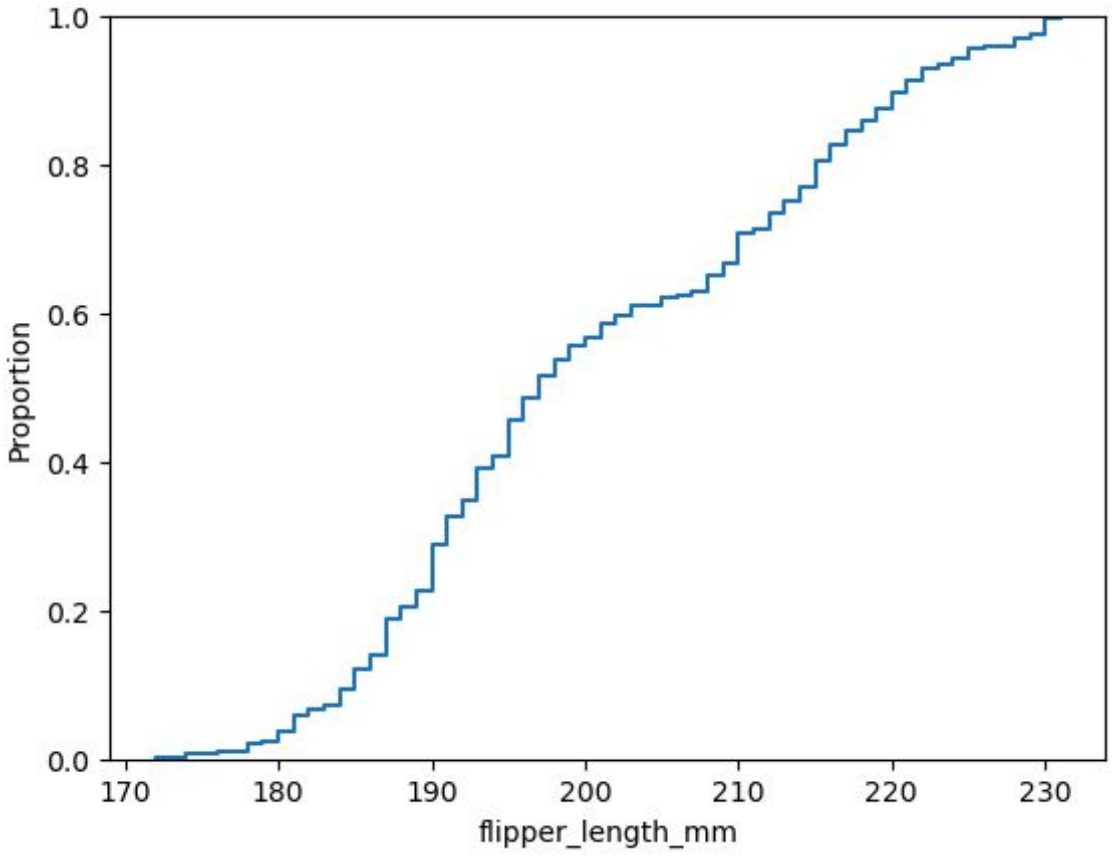
Out[28]:

	species	island	bill_length_mm	bill_depth_mm	flipper_length_mm	body_mass_g	sex
0	Adelie	Torgersen	39.1	18.7	181.0	3750.0	Male
1	Adelie	Torgersen	39.5	17.4	186.0	3800.0	Female
2	Adelie	Torgersen	40.3	18.0	195.0	3250.0	Female
3	Adelie	Torgersen	NaN	NaN	NaN	NaN	NaN
4	Adelie	Torgersen	36.7	19.3	193.0	3450.0	Female
...	...	...	...	...	...	...	...
339	Gentoo	Biscoe	NaN	NaN	NaN	NaN	NaN
340	Gentoo	Biscoe	46.8	14.3	215.0	4850.0	Female
341	Gentoo	Biscoe	50.4	15.7	222.0	5750.0	Male
342	Gentoo	Biscoe	45.2	14.8	212.0	5200.0	Female
343	Gentoo	Biscoe	49.9	16.1	213.0	5400.0	Male

344 rows × 7 columns

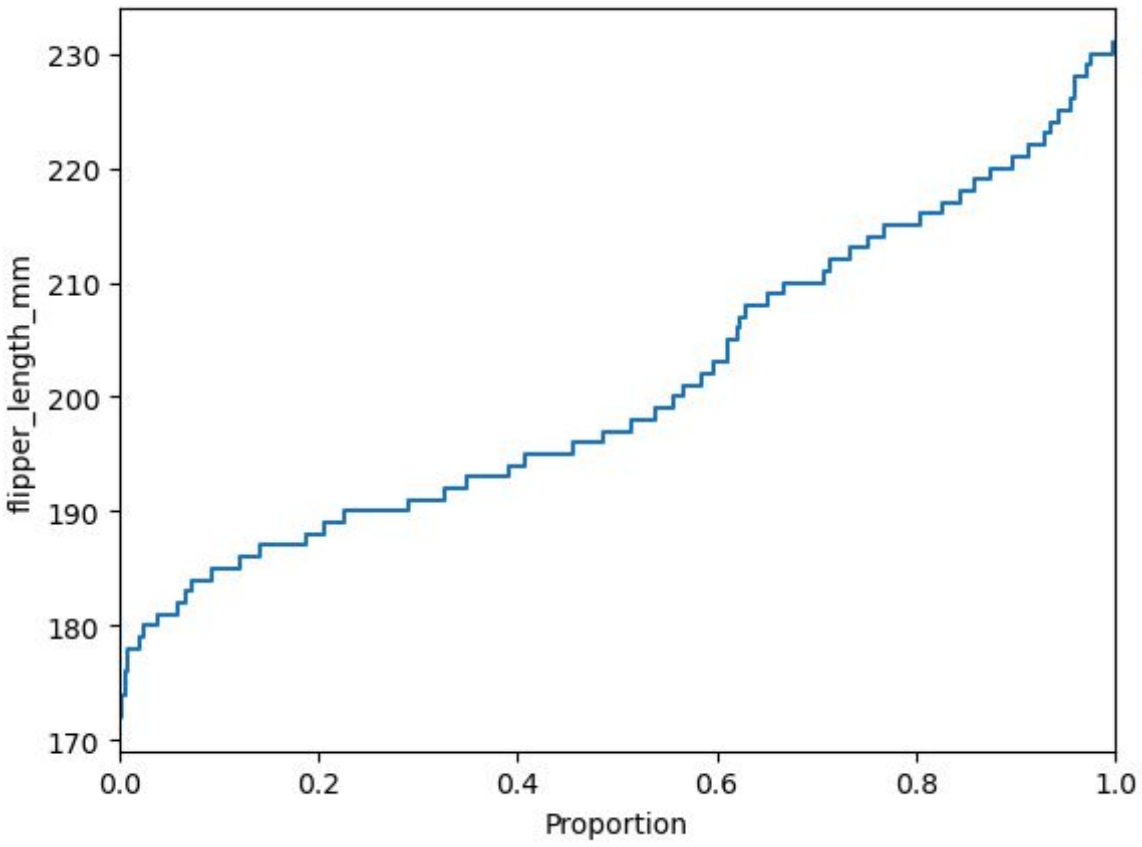
In [29]:
```
sns.ecdfplot(data=penguins, x="flipper_length_mm")
```

Out[29]:
```
<AxesSubplot:xlabel='flipper_length_mm', ylabel='Proportion'>
```

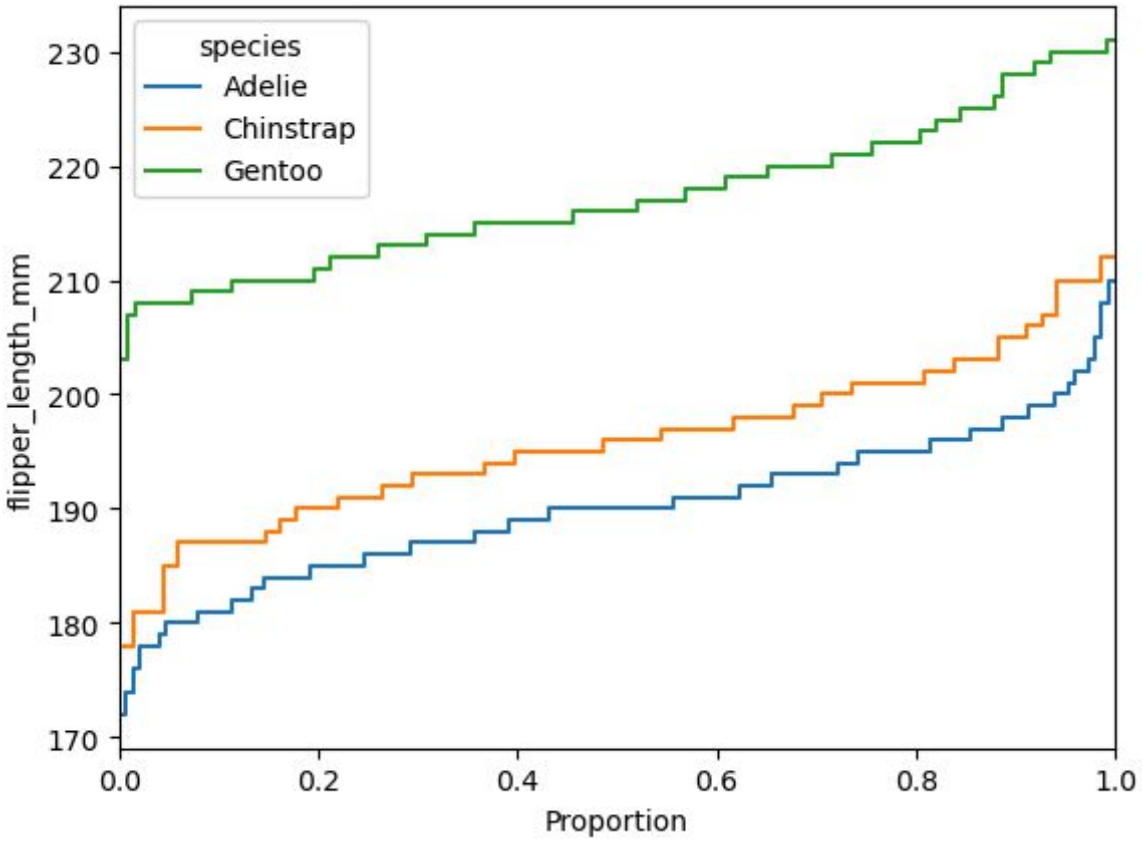


In [30]:
```
sns.ecdfplot(data=penguins, y="flipper_length_mm")
```

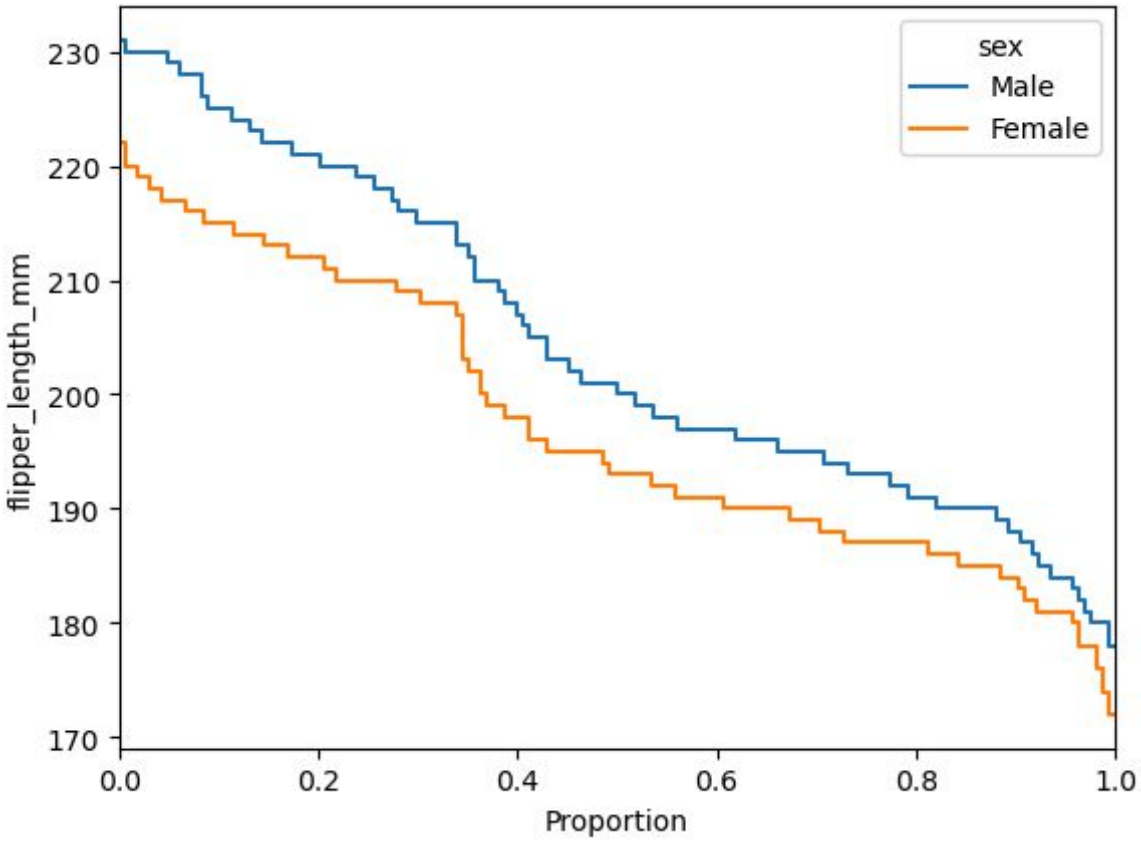
Out[30]: <AxesSubplot:xlabel='Proportion', ylabel='flipper_length_mm'>



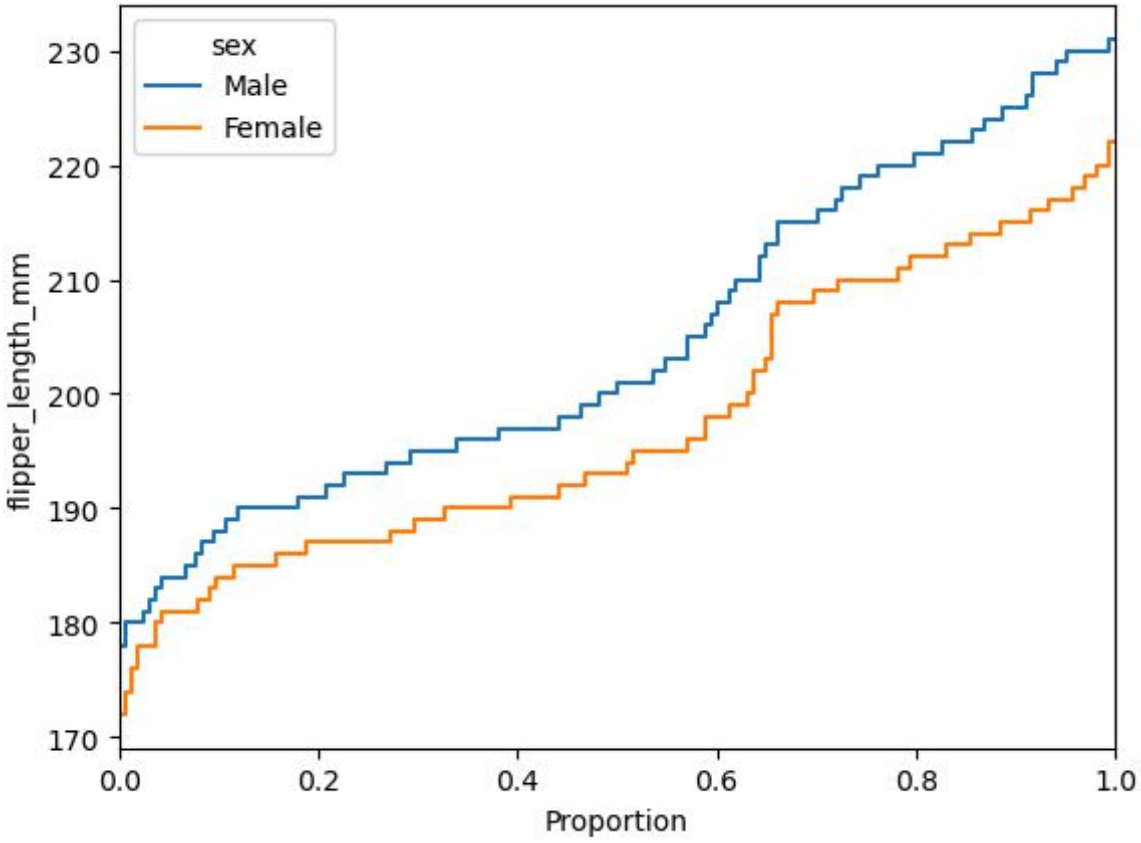
In [31]:
```
sns.ecdfplot(data=penguins, y="flipper_length_mm",hue="species")
plt.show()
```



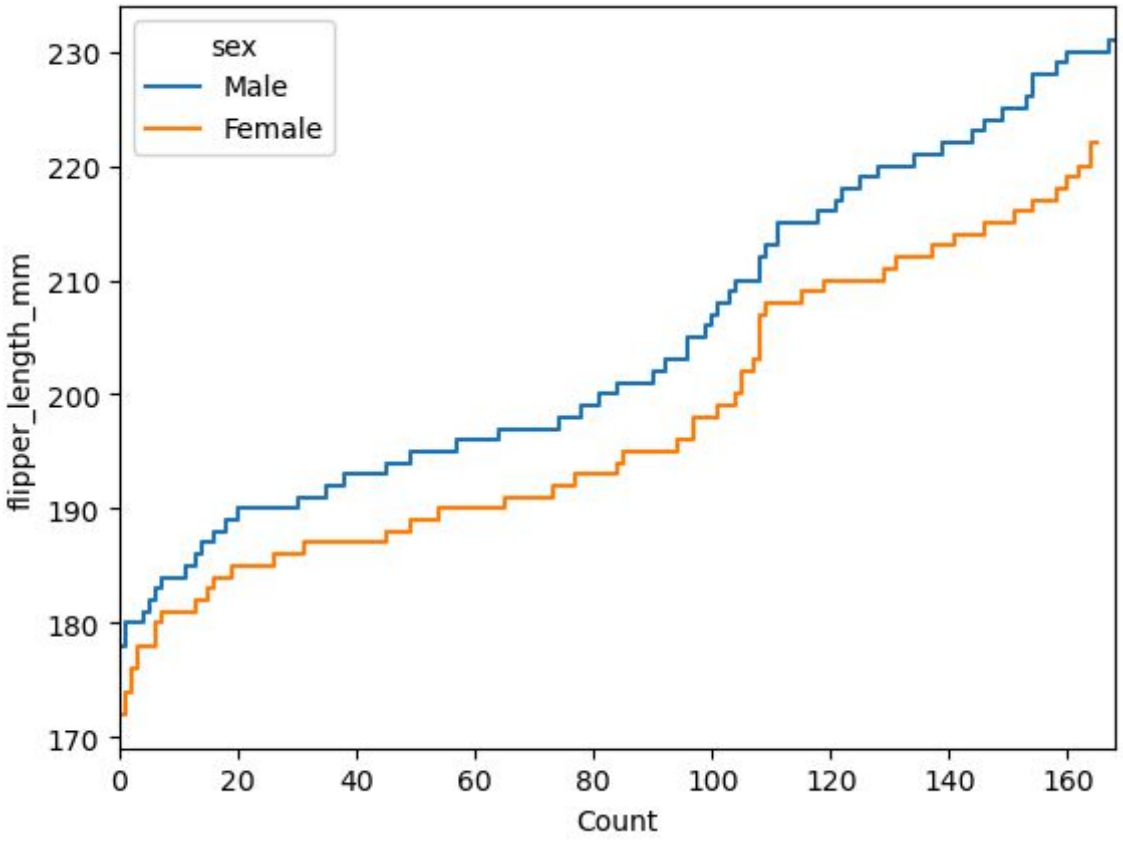
In [36]:
```
sns.ecdfplot(data=penguins, y="flipper_length_mm", hue="sex", complementary=True)
plt.show()
```



In [37]:
```
sns.ecdfplot(data=penguins, y="flipper_length_mm", hue="sex", complementary=False)
plt.show()
```

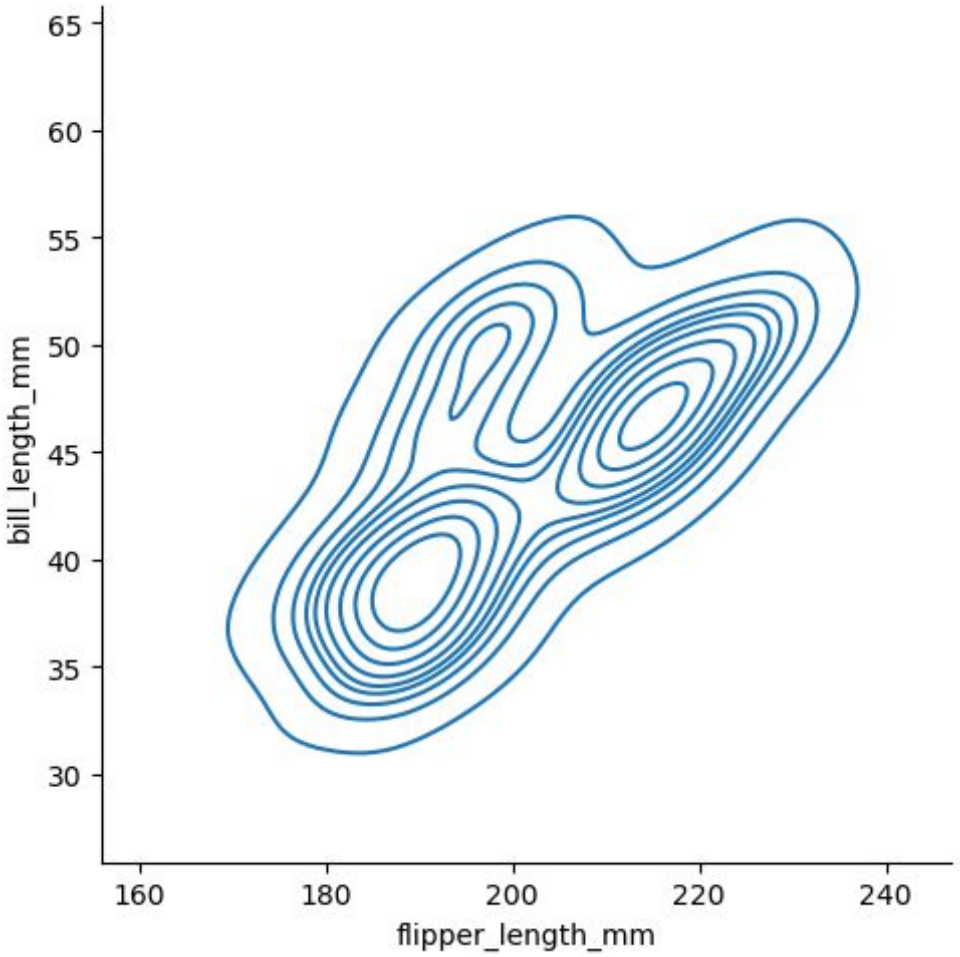


In [39]:
```
sns.ecdfplot(data=penguins, y="flipper_length_mm", hue="sex", stat="count")
plt.show()
```

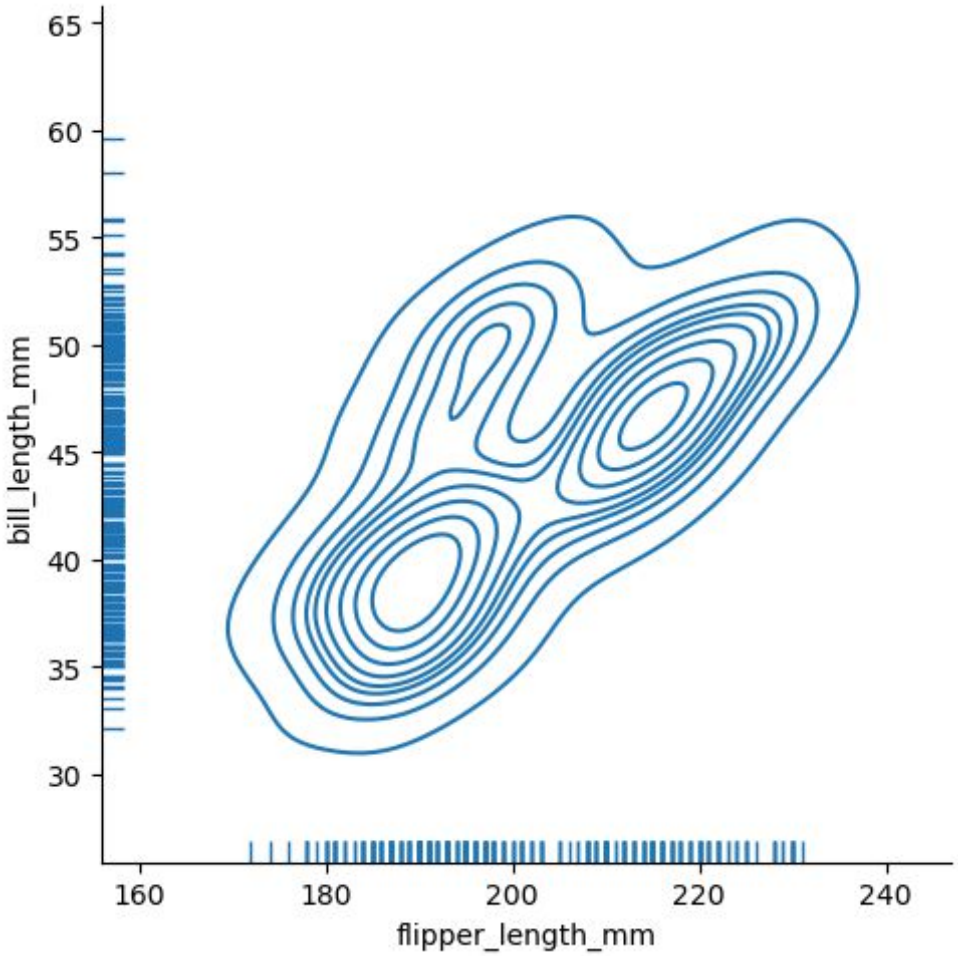


DISTPLOT

In [45]:
```
sns.displot(data=penguins, x="flipper_length_mm", y="bill_length_mm", kind="kde")
plt.show()
```

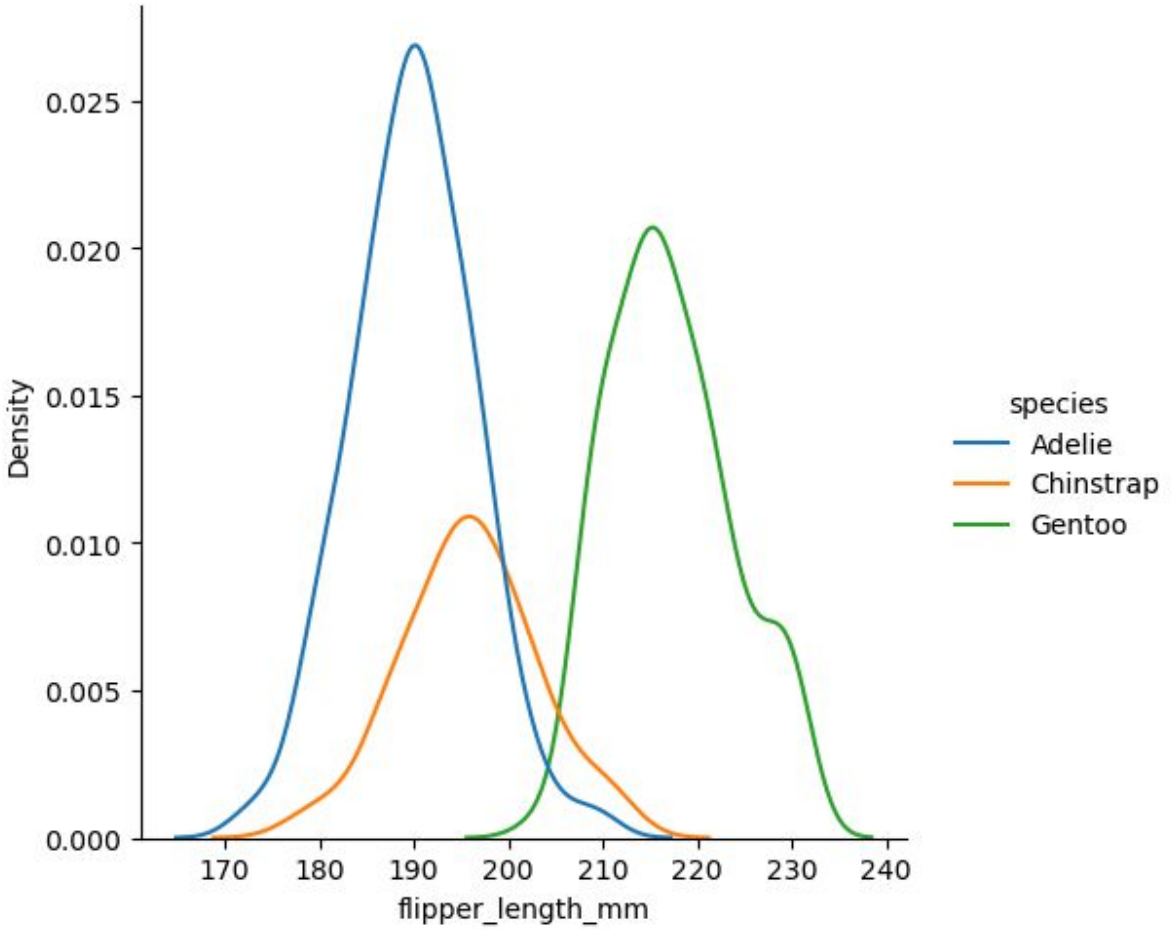


In [46]:
```
sns.displot(data=penguins, x="flipper_length_mm", y="bill_length_mm", kind="kde", r
plt.show()
```



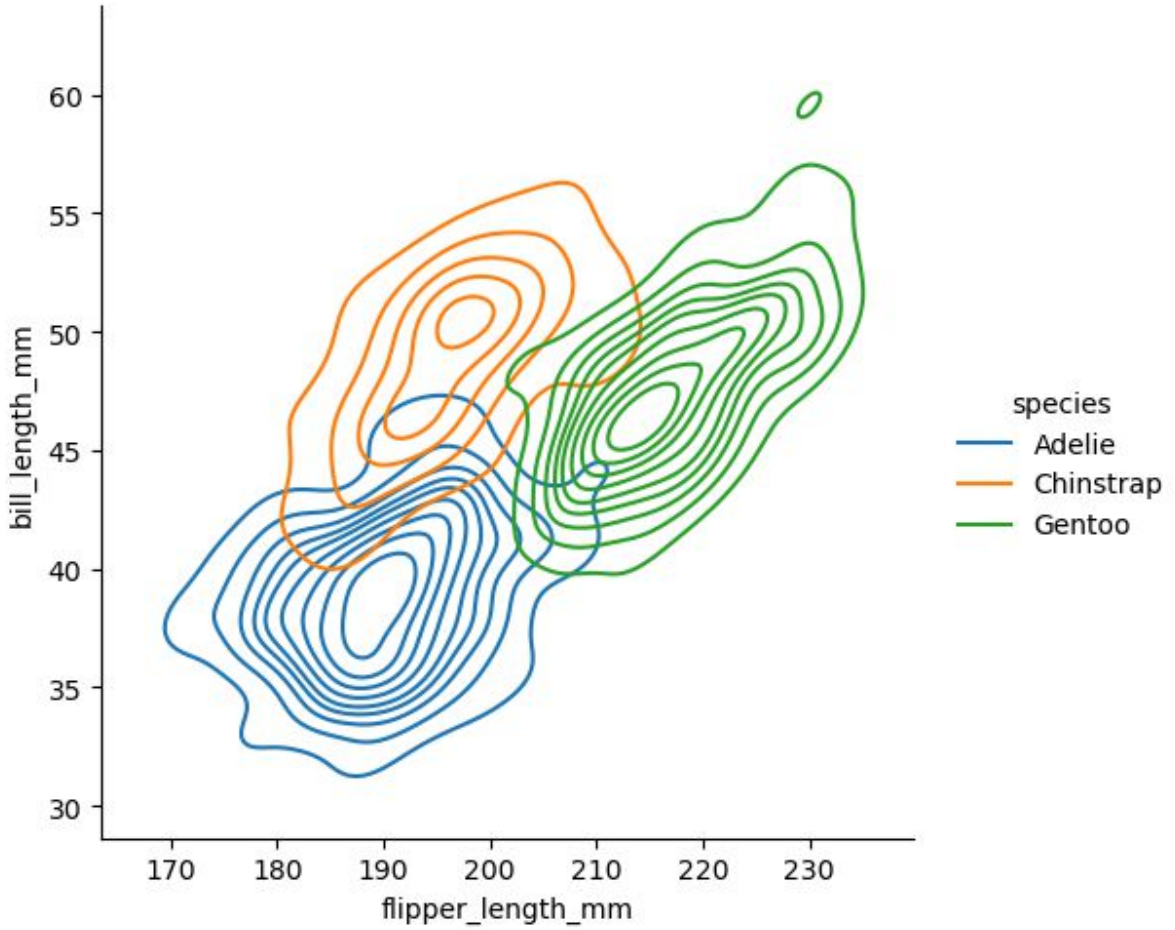
In [47]:
```
sns.displot(data=penguins, x="flipper_length_mm", hue="species", kind="kde")
```

Out[47]:
```
<seaborn.axisgrid.FacetGrid at 0x1835b330040>
```



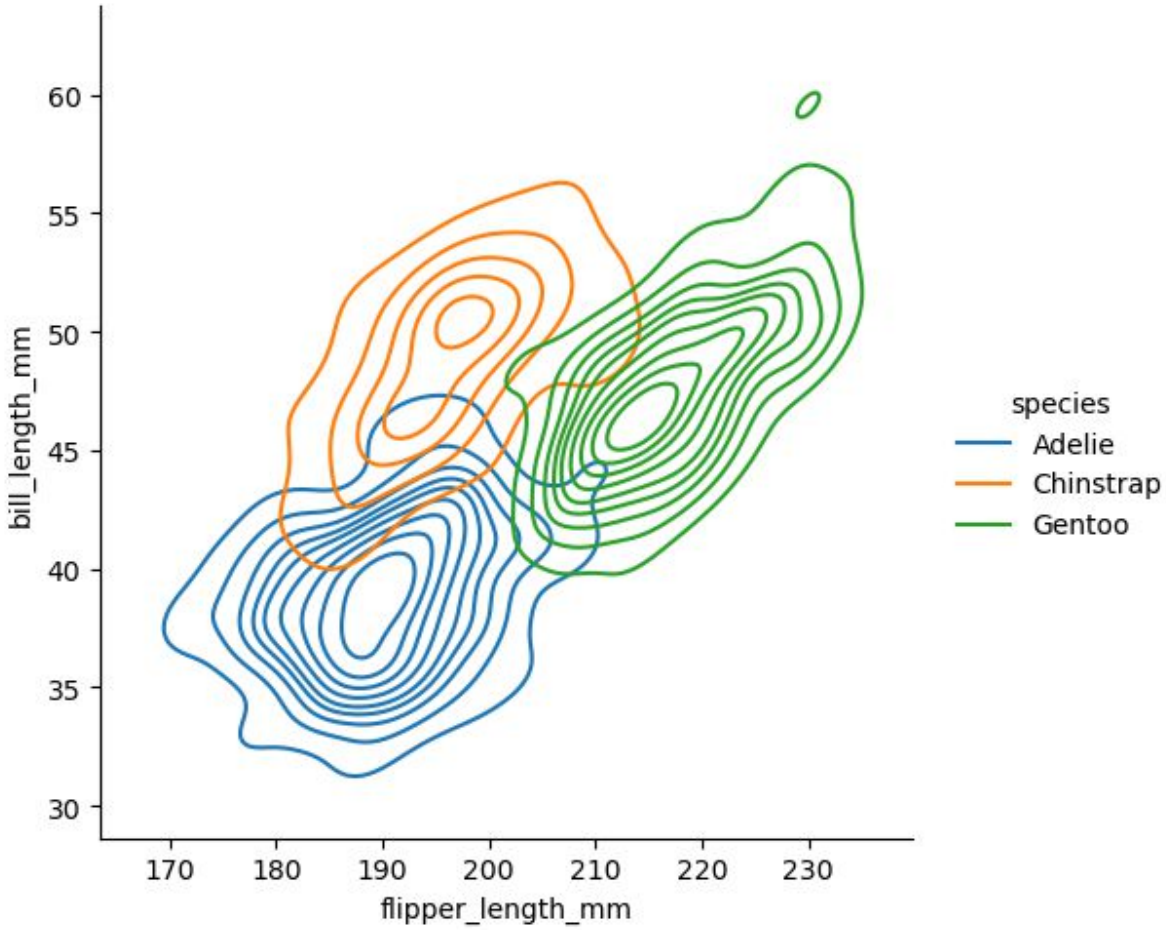
In [50]:
```
sns.displot(data=penguins,y="bill_length_mm", x="flipper_length_mm", hue="species",
plt.show()
```

```
C:\Users\shaw3\anaconda3\lib\site-packages\seaborn\distributions.py:1210: UserWarn
ing: The following kwargs were not used by contour: 'size'
  cset = contour_func(
```

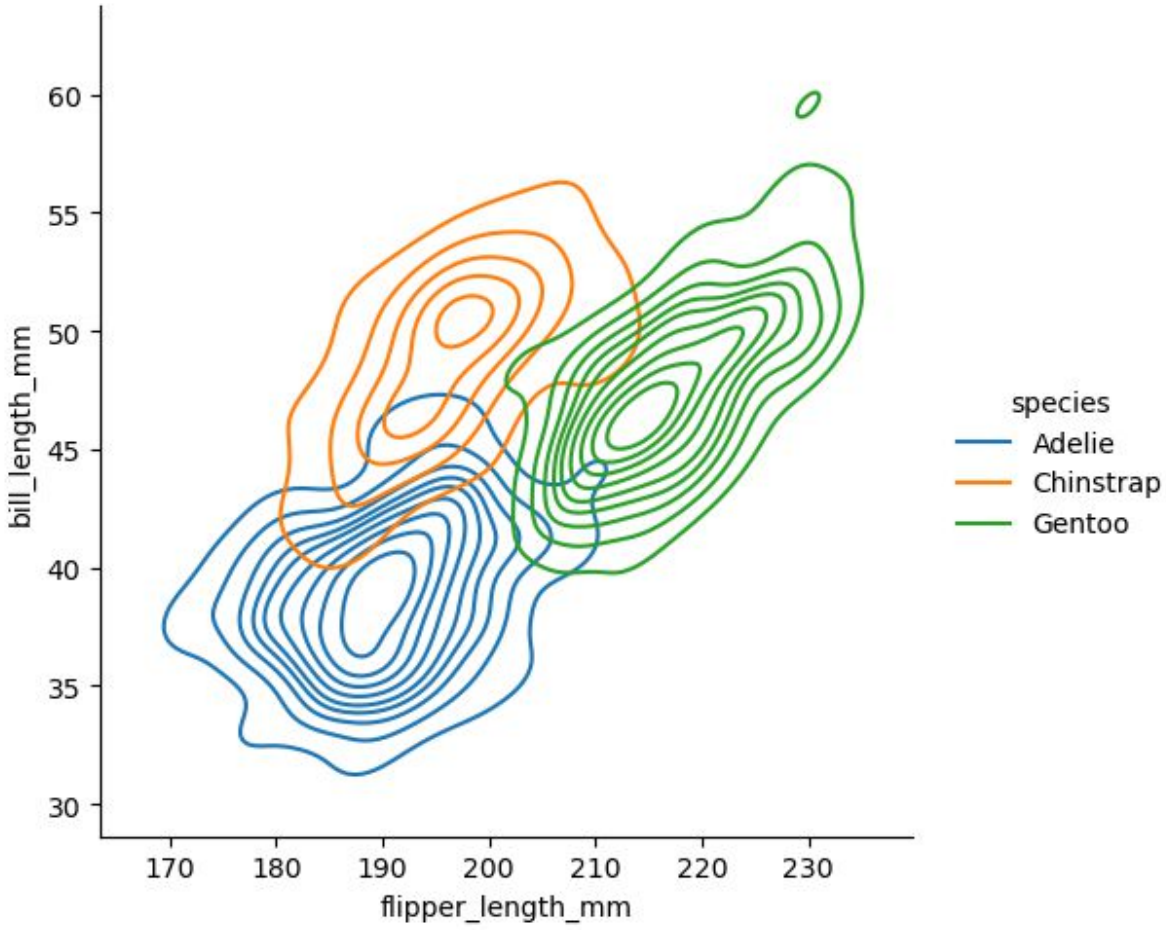


In [54]:
```
sns.displot(data=penguins,y="bill_length_mm", x="flipper_length_mm", hue="species",
            kde_kws={"bw_adjust":9})
plt.show()
```

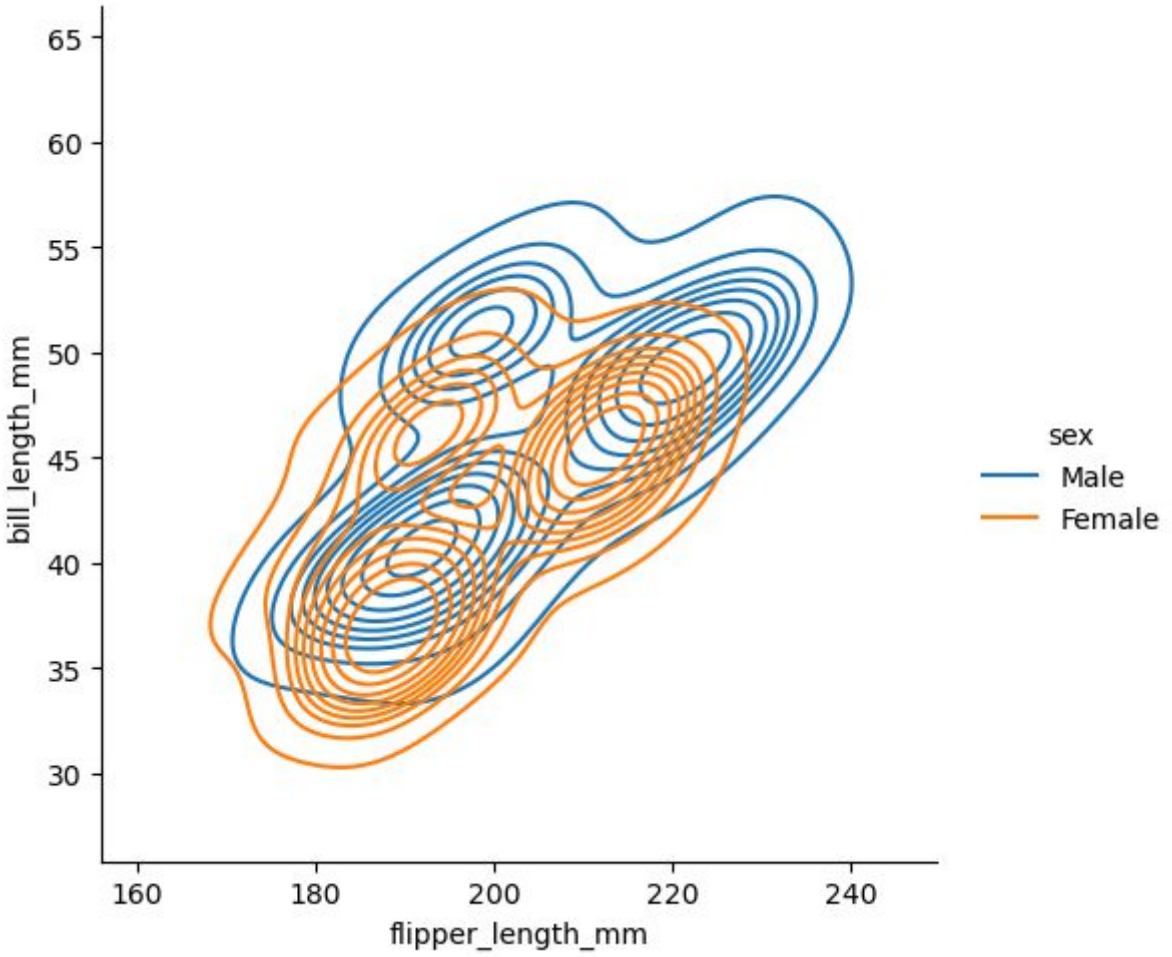
```
C:\Users\shaw3\anaconda3\lib\site-packages\seaborn\distributions.py:1210: UserWarn
ing: The following kwargs were not used by contour: 'kde_kws'
  cset = contour_func(
```



In [55]:
```
sns.displot(data=penguins,y="bill_length_mm", x="flipper_length_mm", hue="species",
            rug_kws={'height':0.05})
plt.show()
```

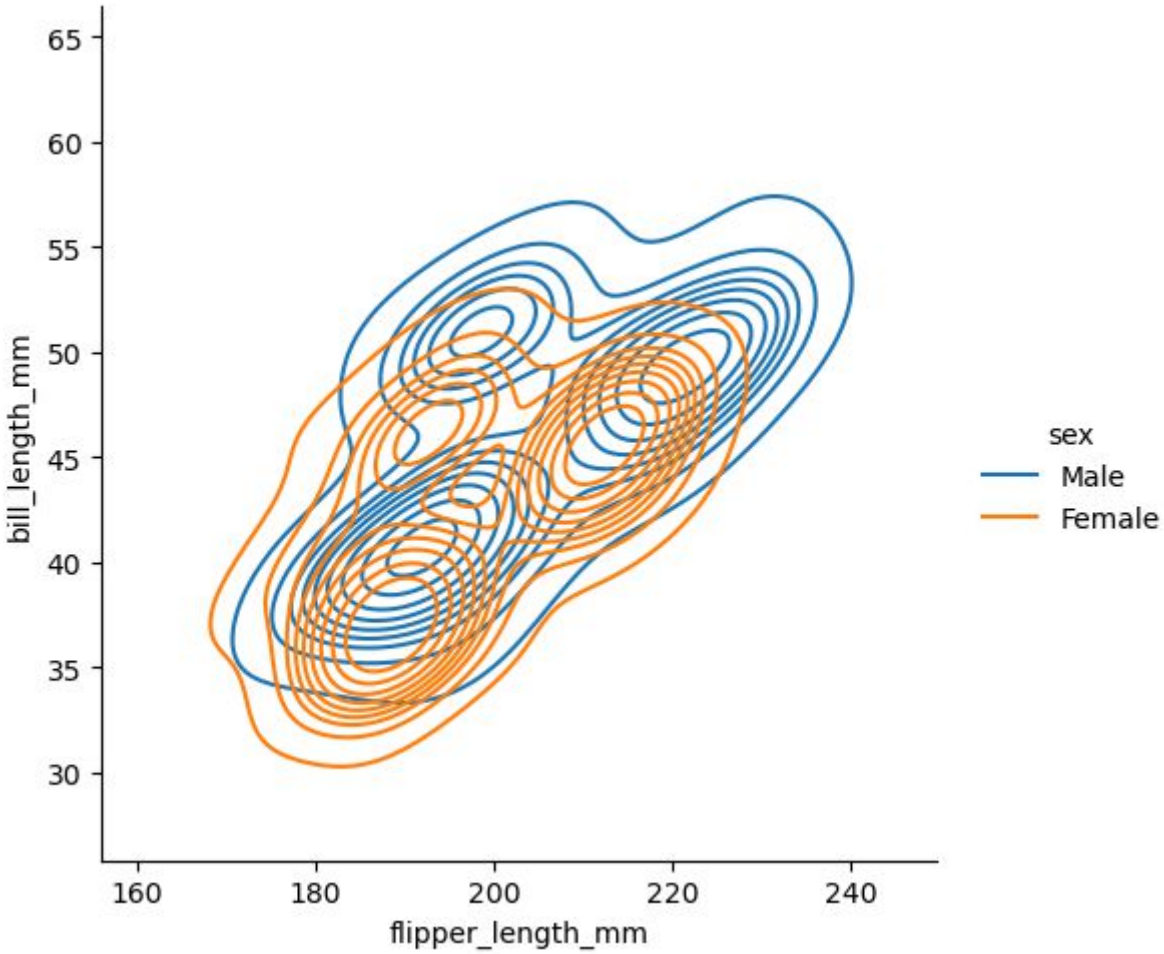


In [57]:
```
sns.displot(data=penguins,y="bill_length_mm", x="flipper_length_mm",  kind="kde",
            rug_kws={'height':0.05},hue="sex")
plt.show()
```



In [58]:
```
sns.displot(data=penguins,y="bill_length_mm", x="flipper_length_mm",  kind="kde",
            rug_kws={'height':0.05},hue="sex",multiple='stack')
plt.show()
```

```
C:\Users\shaw3\anaconda3\lib\site-packages\seaborn\distributions.py:1210: UserWarn
ing: The following kwargs were not used by contour: 'multiple'
  cset = contour_func(
```


65
60
55
50
45
40
35
30
bill_length_mm
160
180
200
220
240
flipper_length_mm
sex
Male
Female

In [ ]: