

# Size frequency in 78/79



# Objective: develop a time series for size frequency

- Size frequency data in Lyons et al. 1981 includes information for over 19,000 lobsters tagged during 78-79 season, but this complete 78-79 raw data set no longer exists
- Migration data set was created from the complete data set to evaluate migration, so only recaptures are included
- Can we use the migration data set for size frequency to represent the complete 78-79 data set?

# Size frequency of lobsters during the 78-79 season

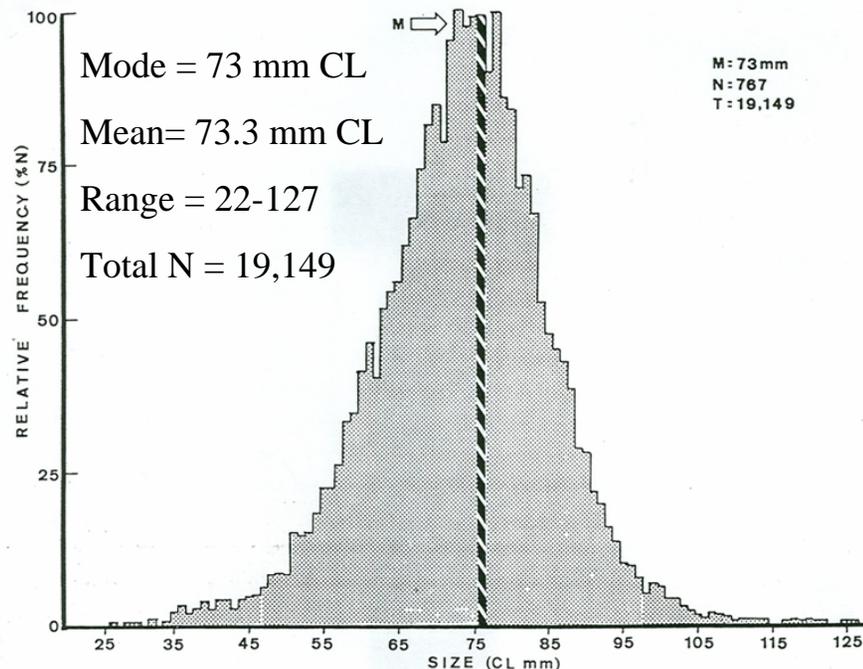
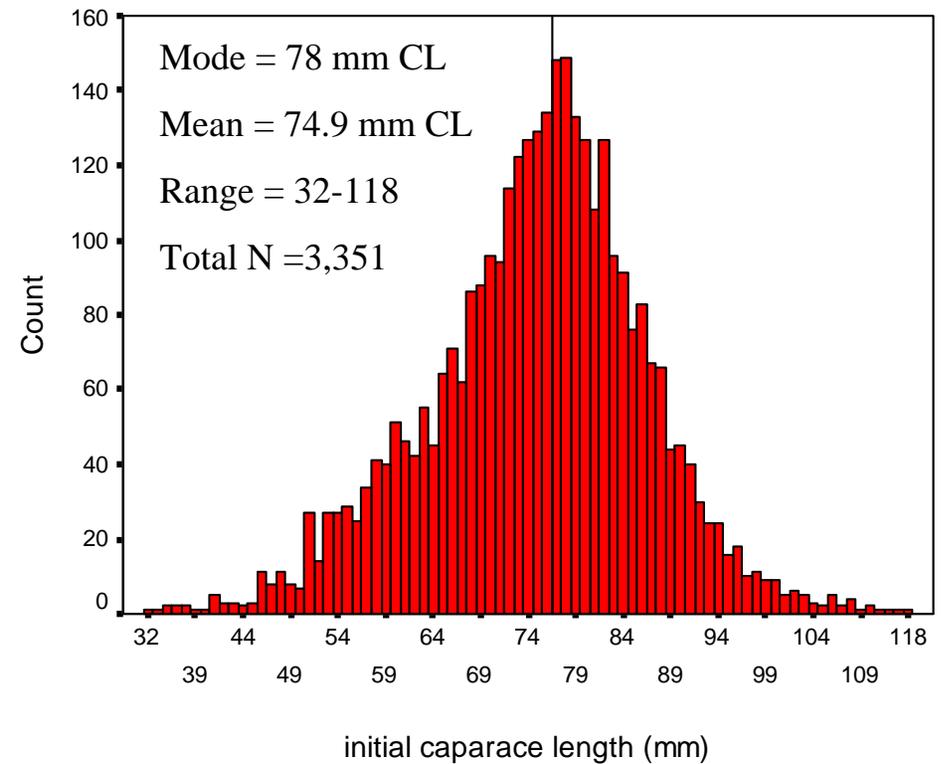


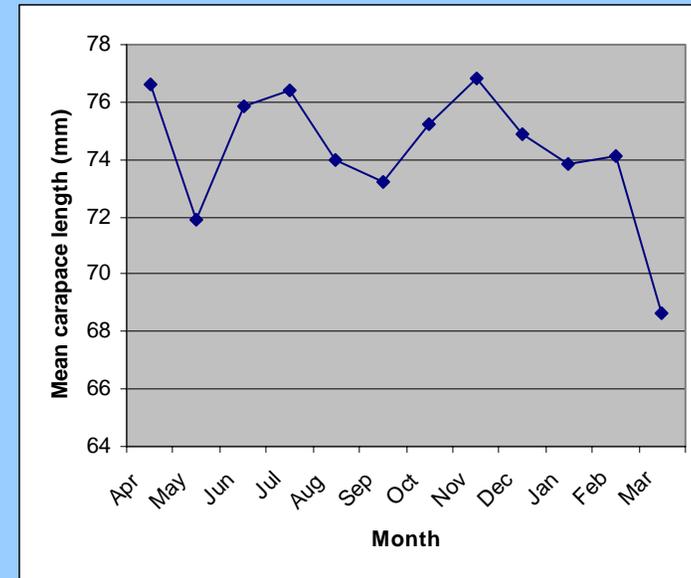
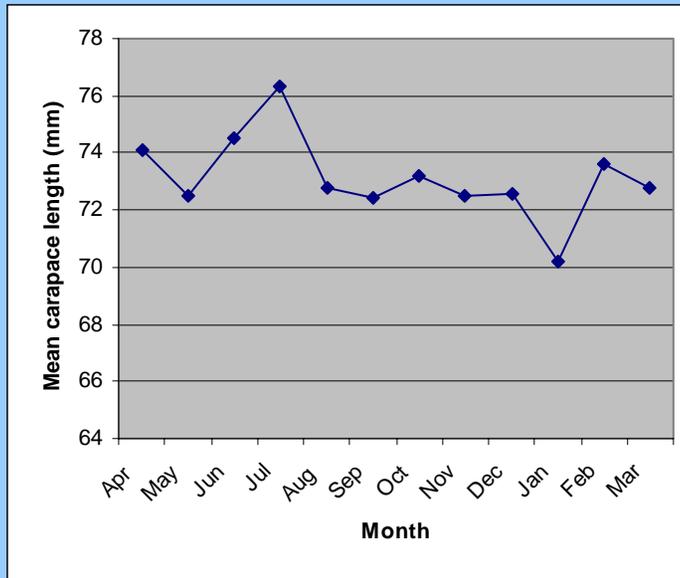
Figure 3. Numbers of spiny lobsters per 1 mm CL size class, all stations, all months; M=modal size, N=number in modal class; T=total number of lobsters measured; vertical bar=first harvestable size class.



Complete size frequency data set from Lyons et al. 1981. Includes all tagged animals for all months

Size frequency from a migration data set. Includes initial size of only animals that were recaptured

# Mean size (mm CL) of spiny lobster per month



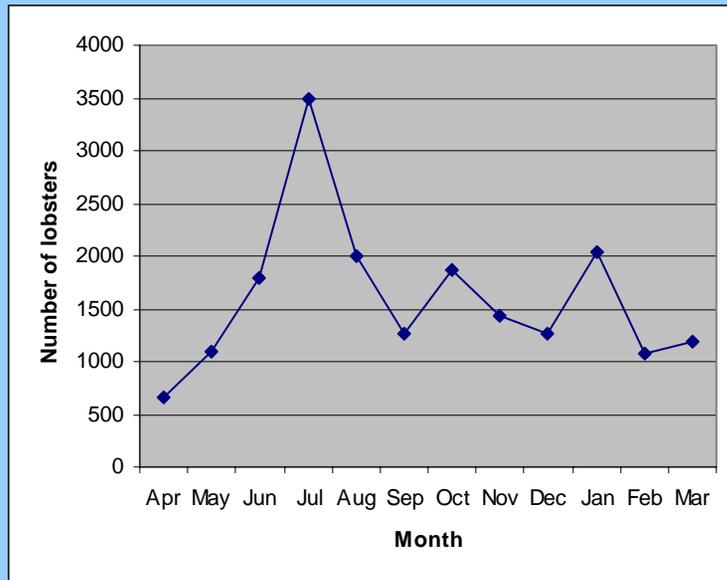
Month	size CL (mm)
Apr	74.1
May	72.5
Jun	74.5
Jul	76.3
Aug	72.8
Sep	72.4
Oct	73.2
Nov	72.5
Dec	72.6
Jan	70.2
Feb	73.6
Mar	72.8

Complete data set

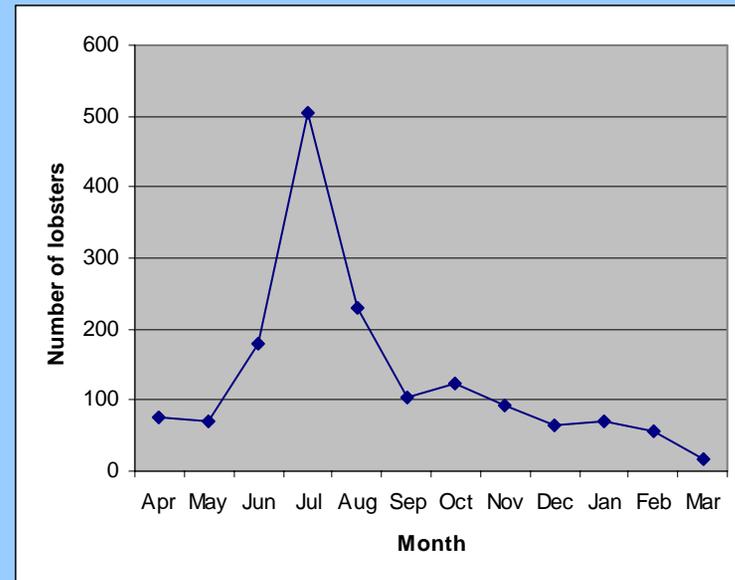
Month	size CL (mm)
Apr	76.62
May	71.9
Jun	75.87
Jul	76.38
Aug	73.99
Sep	73.19
Oct	75.24
Nov	76.83
Dec	74.89
Jan	73.87
Feb	74.13
Mar	68.67

Migratory data set

# Total number of legal sized lobsters caught per month

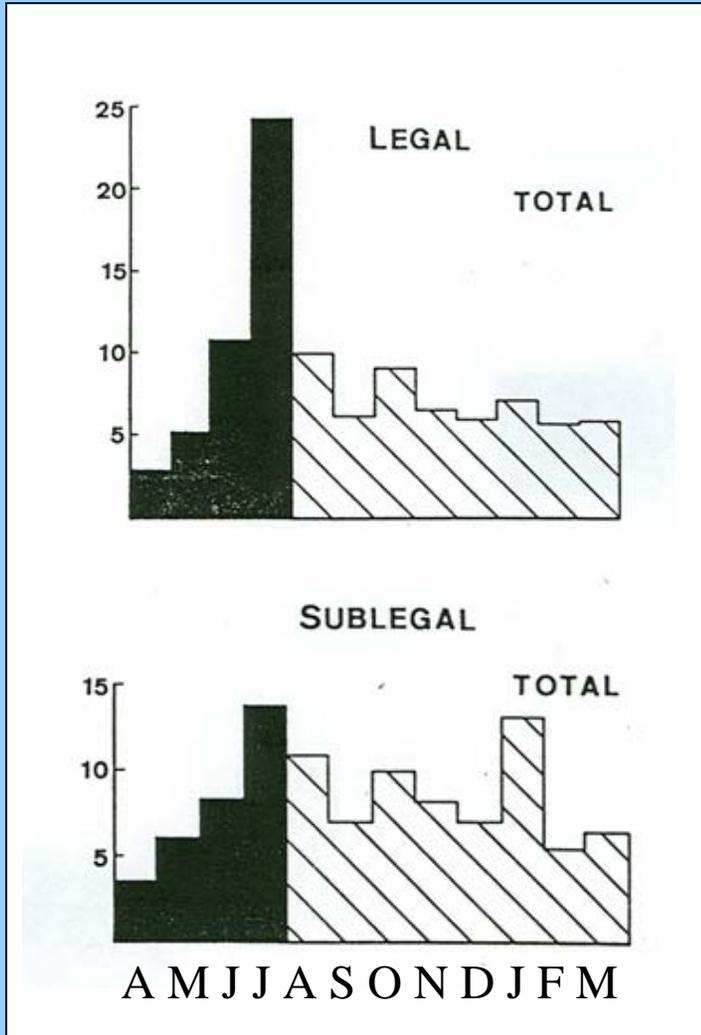


Complete data set

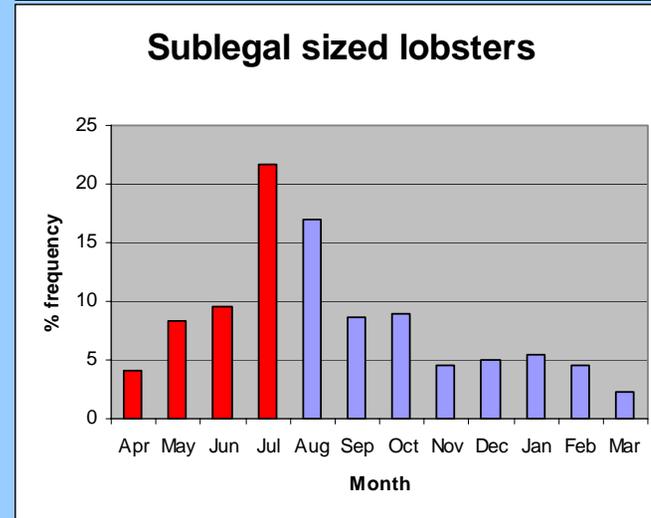
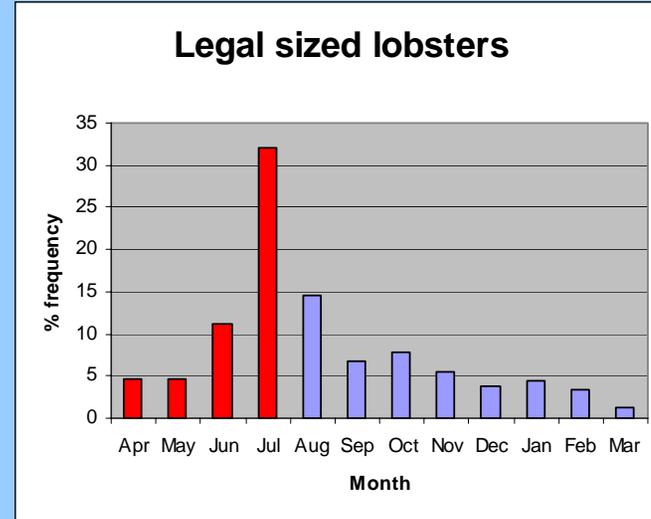


Migratory data set

# Percent frequency lobsters caught per month



Complete data set



Migratory data set

# Conclusions

- Lobsters are bigger in the migration data set
- This may be because fishermen were more likely to report data on legal sized lobsters and return sublegal sized lobsters to the trap
- Can we use migration data set for anything other than migration?
- If no, unless someone can dig up original 78-79 data set, we have no accurate size frequency data for 78-79