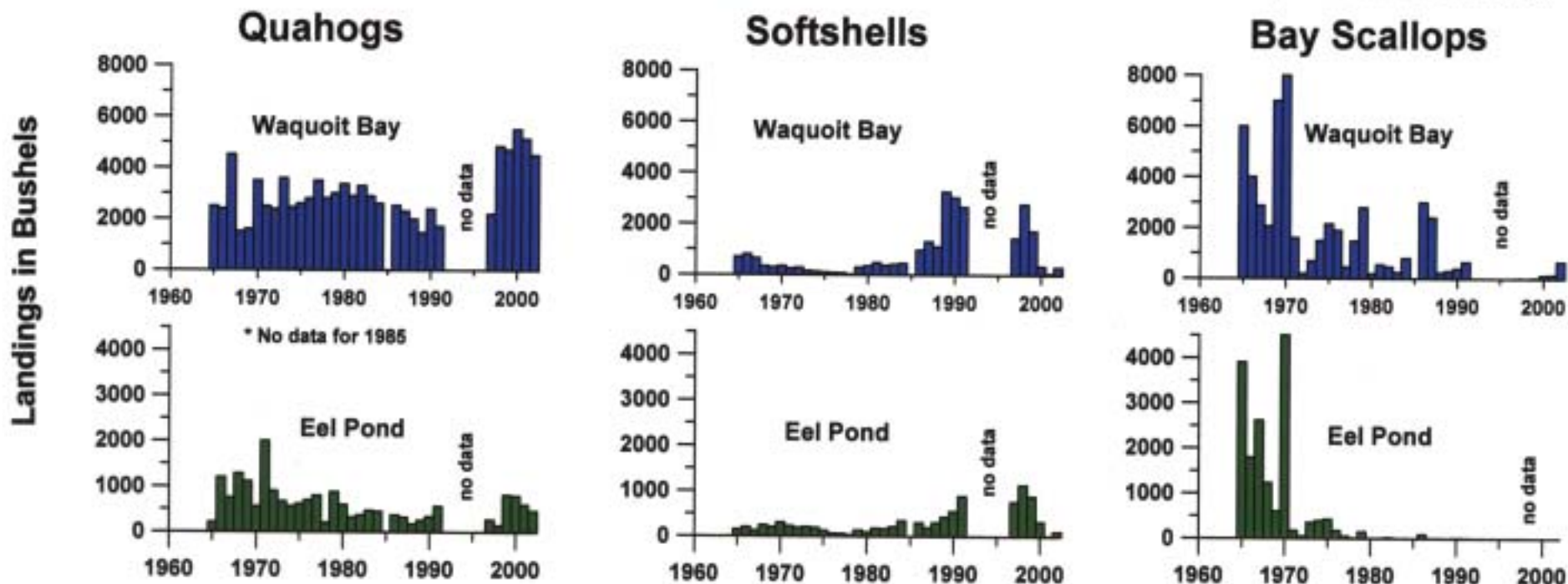


Observing Trends in Raw Data Vs. Transformed Data

In the graphical display on this side of the page, shellfish landings are presented in a simple, "raw data" format. The variability in the numbers is quite evident and trends are somewhat obscured, especially since the y-axis (Landings in Bushels) is kept to the same range for the three graphs for both areas. On the other side of this page, the landings data have been converted with the logarithmic transformation (Log 10). This compresses variation and clarifies trends. Compare, for example, the two types of graphs of the scallop data. Without the log transformation, the variation overwhelms the presentation and confuses the message. On the other hand, quahog data are much less variable. It is much easier to discern the general increase during the 1970s and subsequent general decline in the 1980s with the non-transformed data. With mixed data sets like these, transformation is useful for homogenizing the variation in them and rendering them suitable for comparisons. When doing so, one should always compare transformed results with raw numbers to get the most of the examination.



Credits:

1. Data provided by Town of Falmouth Shellfish Constable Paul S. Montague.
2. Graphics by R. Crawford.

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