VIDEO: "Reading Histograms" (1:50)

(00: 00)

We will begin by discussing how to read a histogram using the Daphne island peak sizes as an example. Usually when people look at it histogram, they first figure out the general shape and then make observations about how likely different data values are to occur. Read the data values from the x-axis and use the height of the bar to infer how many or what fraction of that data has that value it often helps to use a ruler or draw a line to get an accurate height. Our example one bin has or ten percent of the data values. One tricky point is that the x-axis label does not necessary line up with the bins, so you have to estimate the position. Our example pin which holds roughly ten percent of the data has enter at approximately 10.5 mm corresponds to data are approximately 10.3-10.6 mm. Notice we are using the fraction portion of the histogram rather than the count version.

(01:01)

In science data typically represents measurements of sample or subset of the possible item. And so, we are more interested in the fraction data rather than how many. As we increase the number of data points the fraction should stabilize but the counts will keep getting bigger. However, if you use fractions or percentages rather than counts be sure to put the number of data points somewhere on the graph. This graph shows the number of birds 751 in the title. You can easily get the actual number of birds from a particular bin from the fraction by multiplying. For examples, our designated bin contains a fraction contains a fraction of .1 or 10 percent of the birds. Multiply the fraction by the total number of points and we find this bin has about 75 birds.