

Figure 1.2: Histograms for the length feature for the two categories. No single threshold value  $l^*$  (decision boundary) will serve to unambiguously discriminate between the two categories; using length alone, we will have some errors. The value  $l^*$  marked will lead to the smallest number of errors, on average.

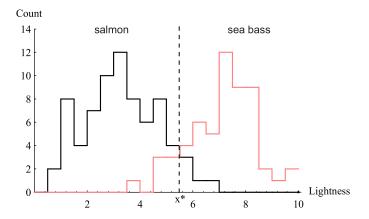


Figure 1.3: Histograms for the lightness feature for the two categories. No single threshold value  $x^*$  (decision boundary) will serve to unambiguously discriminate between the two categories; using lightness alone, we will have some errors. The value  $x^*$  marked will lead to the smallest number of errors, on average.