



Mapping the Location of Humpback Whales - Student Worksheet

Humpback Whales from three different breeding groups can be found off the coast of western North America. When researchers collect tissue samples from these whales, they mark the latitude and longitude of the whale at the time the sample was taken. Though the location of the sample does not tell us what breeding population the whale belonged to, it can help scientists identify feeding grounds. When these samples are later analyzed to determine breeding population identification, the latitude and longitude information indicates where members of each breeding ground feed, as well as the extent of intermixing of these populations during feeding.

Use the data below to plot the location of each whale on the Northern Hemisphere map. Please color code the markings on the map based on the identified breeding population. Once you have created your map, answer the following questions:

Questions:

1. What patterns can you identify from your map?
 - a. Would you say members of each breeding population have a range of feeding grounds? What data support this?
 - b. Are there locations where members of different breeding groups overlap? Where is this?
 - c. Are there feeding locations specific to certain breeding populations? What data support this?
2. Why do you think it is important to identify the breeding population of whales at a specific feeding population?
3. How can you use this information to help with your humpback whale management argument?

Sample Location Data

Breeding Ground	LATITUDE	LONGITUDE
Central America	34.40	-120.11
Central America	34.52	-120.74
Central America	34.94	-120.73
Central America	35.09	-120.83
Central America	35.28	-120.95
Central America	36.60	-122.07
Central America	36.65	-122.04
Central America	36.78	-122.02
Central America	36.78	-121.90
Central America	36.79	-121.90
Mexico	37.67	-123.08
Mexico	37.70	-123.00
Mexico	37.70	-123.00
Mexico	40.35	-124.53
Mexico	41.54	-124.47
Mexico	41.59	-124.48
Mexico	36.61	-122.07
Mexico	36.65	-122.03
Mexico	36.80	-121.90
Mexico	37.67	-123.08

Hawaii	36.79	-121.90
Hawaii	37.67	-123.07
Hawaii	37.70	-123.00
Hawaii	40.35	-124.53
Hawaii	41.59	-124.48
Hawaii	47.28	-124.77
Hawaii	48.39	-125.35
Hawaii	48.59	-125.55
Hawaii	48.51	-125.44
Hawaii	54.28	-133.02

Pacific Rim

