LEARNING TO ANALYZE GRAPHS

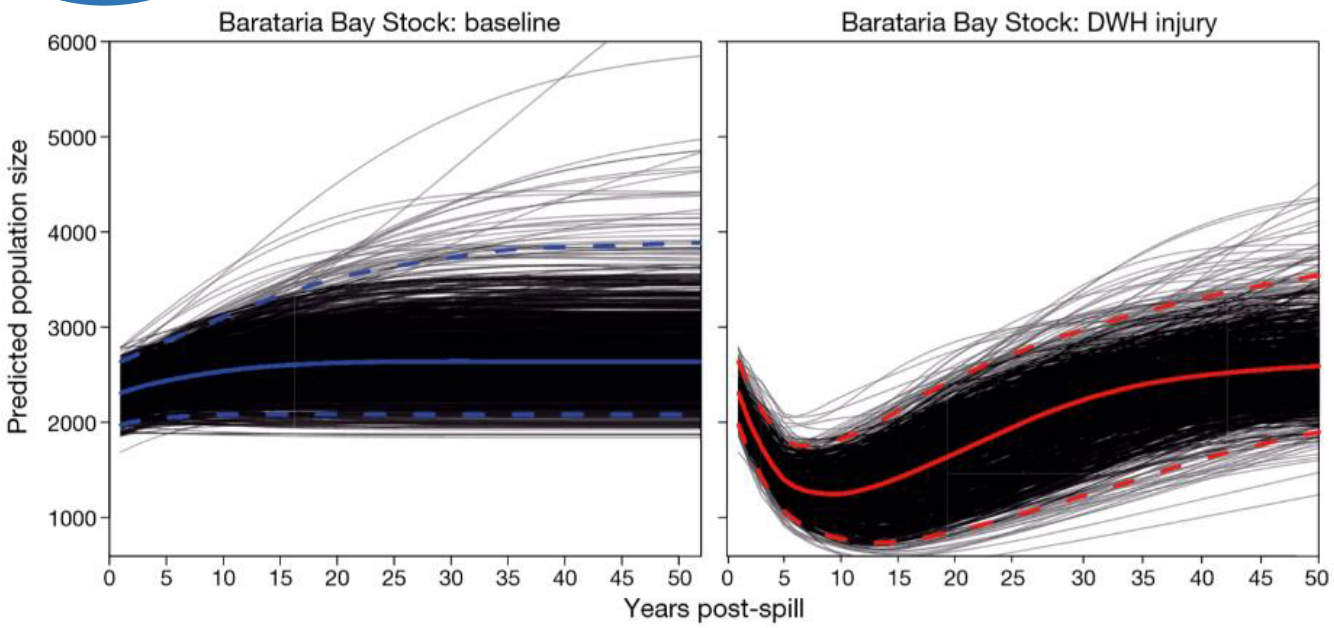

Fig. 3. Simulated population trajectories for Barataria Bay bottlenose dolphin *Tursiops truncatus* stock under baseline conditions (left), and with *Deepwater Horizon* (DWH) injury (right). Each black line represents the result from 1 simulated trajectory; trajectories were thinned by a factor of 10 for graphing. Solid and dashed blue/red lines represent median and 95th percentiles for trajectories

KEY WORDS

Dolphin

Tursiops truncatus

Gulf of Mexico

Deepwater Horizon

Population

Baseline conditions

Trajectory

Median

95th percentile

Independent/ Dependent variables

Sustainability

Sentinel species

DOLPHIN POPULATION TRAJECTORY ANALYSIS

1. What variable is represented by the x-axis?_____

2. What variable is represented by the y-axis?_____

3. What does each black line represent?_____

4. What does the solid blue/ red line represent?_____

5. What do the dashed blue/ red lines represent?_____

6. According to these models, if the *Deepwater Horizon* oil spill had not happened, what would happen to the population size in 50 years?

_____

7. For approximately how many years did the dolphin population size decrease after the spill?_____

8. How many years will it take for the dolphin population size to rebound to pre-spill population estimates?_____

THINKING OUTSIDE THE GRAPH

9. What do you think would have happened to the population of Barataria Bay bottlenose dolphins if the oil spill had never happened? _____

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10. Why is it important to have a sustainable population?_____

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11. Why is it important to monitor sentinel species?_____

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