Comparing/Contrasting Field Research Techniques

Overview: There are many ways that scientists conduct field research to further their knowledge of a species and the ecosystem surrounding it. Some techniques are more invasive than others. Engaging students in learning about varied ways an animal can be studied helps them understand the outcomes and impact of scientific research.

Resources:

Movebank data site
https://www.movebank.org/panel_embedded_movebank_webapp

Raptor View Research Institute
https://www.raptorview.org/golden-eagle-research-projects.html

Types of Wildlife Research
https://mcgill.ca/research/research/compliance/animals/training/wildlifefield

MPG Ranch
https://www.mpgranch.com/research

Teacher Directions:
Divide students in teams of 3-4. Each team should have a piece of chart paper and markers.
Divide the chart paper into three columns. Head one column: Only Invasive Research Techniques, the second column: Only Non-Invasive Research Techniques, the third column: Both Research Techniques.
Ask students to investigate all of the ways researchers conduct studies on animals. The resources above may be good places to start but there are others. The groups should decide whether the techniques are invasive or non-invasive and what actions are taken to gather data. Write the actions in the appropriate columns.

De-brief as a group to clarify what types of research can be done when studying animals in the field.

Extensions:
1. Debate the pros and cons of invasive vs. non-invasive research techniques.
2. Investigate other animal studies and determine which are the most effective techniques.


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