Bidarki Story (Part 3b)

What the scientist did

Anne Salomon developed hypotheses she could test.

Hypothesis #1: Bidarkis make a difference in the kinds of other plants and animals that can live in a place.
What she did: She set up experiments to keep the bidarkis out of small areas by using copper rings (which are toxic to bidarkis so they won't move across them), scraped the area of rock inside the ring clean of living things, and observed what grew or settled inside the ring compared to a nearby area the same size.

Hypothesis #2: Bidarkis will be smaller and fewer in areas where people harvest them than bidarkis in areas where people do not harvest them.
What she did: She compared 11 sites, extending over 50 km of coastline. Some sites were close to villages where bidarkis were heavily harvested. Some sites were far from villages and were rarely or never harvested. Other sites were not harvested very often due to weather. She estimated the number of bidarkis and weighed and measured them to determine the average size at each site.

Hypothesis #3: Some things have changed during the period of time that bidarkis were getting smaller and fewer. These changes can help explain the decline.
What she did: She worked with a social scientist, Henry Huntington, to interview elders and long-term residents to document their traditional knowledge of the bidarkis and the local area.

What she found out:

1. Bidarki numbers and average sizes were lower at sites closest to the villages.
2. Bidarkis were important to other living things in their habitat. Where there were average or high numbers of bidarkis, they ate nearly all of one type of kelp (Alaria marginata). There were also fewer marine invertebrate species present (38% fewer).
3. There was a lot more kelp in places where many bidarkis were harvested (seven times more kelp).

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