GRASSY NARROWS BONUS SUBMISSION

Fill in the missing values

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Largemouth Basss | Northern Pike | Walleye | White Fish |
| mean | 0.53 | **0.565** | **0.84** | **0.193333** |
| standard deviation | 0.3 | **0.320252** | **0.430855** | **0.05287** |
| t statistic | 0.469 | **0.641833** | **2.733619** | **-22.4648** |
| df | 21 | **9** | **11** | **14** |
| p-value | 0.322 | **0.268492** | **0.009726** | **1** |

Which fish species are SAFE to eat?

**Largemouth Bass, Northern Pike, and White Fish**

Which fish species are NOT SAFE to eat?

**Walleye**

Why did the methylmercury levels differ among the fish species? (HINT: think about the food chain)

**Walleye is a top carnivore in the ecosystem. It has to eat more to obtain sufficient energy and, because of biomagnification, it is eats more fish that also have mercury. The primary consumer fish do not eat other fish as much so they are exposed to less mercury.**

Considering the data, as well as other factors that you have identified, what would you recommend about fish consumption choices for Grassy Narrows people? Given a choice on fish type, fish size, and amount of fish consumed, is there a single recommendation or does it vary with the type of person (i.e., adult, pregnant woman, child)? Discuss briefly.

**Fish consumers should consider mercury exposure risk, especially if pregnant or if a child due to developmental problems stemming from exposure. Eating smaller portions of high-mercury fish or choosing fish that are lower on the food chain, such as whitefish, may be a good decision.**