Thoughts while sorting throguh Nisqually salmon data from Craig

Data from three fisheries provided: Green River Chinook, LocNis Chinook, and Winter Chum

**LocNis**

LocNis data is arrival at RM 13, which Craig estimates is 1 week above the gauntlet. He estimates early to mid-July is a good starting point for when they enter the gauntlet. I just shifted the whole distribution earlier by a week to cover this. He also estimates that they likely spent less time in the gauntlet than GR because they’re brighter. Since he estimates 1-3 weeks for GR, so I think maybe 1 week is a good starting point. This is not a nice normal distribution. Right skewed, might make sense to just use a uniform distribution with distinct on/off dates? Or just a poorly fitting normal. Mostly seal predation, gauntlet is delta and estuary.

Residence time: 1 week

Enter Gauntlet: early to mid-July (10th?)

Leave Gauntlet: early November (5th?)

Run size: 300-1400, average 630

**Green River**

Craig provided timing curve expressed as % timing through gauntlet. Looks like a nice normal distribution, should be easy to replicate. He estimates 1-3 weeks in gauntlet based on fish brightness and condition. Mostly seal predation, gauntlet is delta and estuary.

Residence time: 1-3 weeks

Enter Gauntlet: late June/early July (1st?)

Leave Gauntlet: late October (31st?)

Run size: 6,000-42,000, average 22,000

**Winter Chum**

Here Craig provides arrival % to the gauntlet. For Chum we’re defining the gauntlet as the whole area from the river mouth through wherever the fish spawns, and the “escape” rate is actually successful spawning.

Residence time: ?

Enter Gauntlet: November 1

Leave Gauntlet: January 31

Run size: 2,000-62,000, average 27,000