# Appendices

# A.1.

Objective: Create a flow/model that can be used to model yearling and fingerling production as a function of adult fish removed.

Considerations: This seems like a partial controllability issue. The required number of fish may or may not be available due to regulatory restrictions or challenging capture conditions.

* Are only wild fish used in broodstock?
* Do they collect as many as they can, both spawning and non-spawning
* One policy is that upper and lower basin fish are not stocked

Data needed

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Year | Nfemales | NMales | Neggs | Nfingerlings | Nyearlings |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. Need to predict eggs or egg volume by number of females  
   E~Nfems+prop\_mature
2. Predict number of fingerlings by egg volume  
   F~E
3. Predict yearlings as fingerlings less those stocked  
   Y~F-F\_stocked

Cpt table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| N females | 0-1000 | 2-3 | …. | 100-200 |
| 0-10 |  |  |  |  |
| 10-20 |  |  |  |  |
| 20-30 |  |  |  |  |
| … |  |  |  |  |
| 40-50 |  |  |  |  |