

# Study of MSF methods

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## Overview

This document produces an overview of a set of candidate methods to account for mark-selective fisheries (MSF) in the calculations of calendar year exploitation rates (CYER) for the Chinook Technical Committee (CTC) indicator stocks.

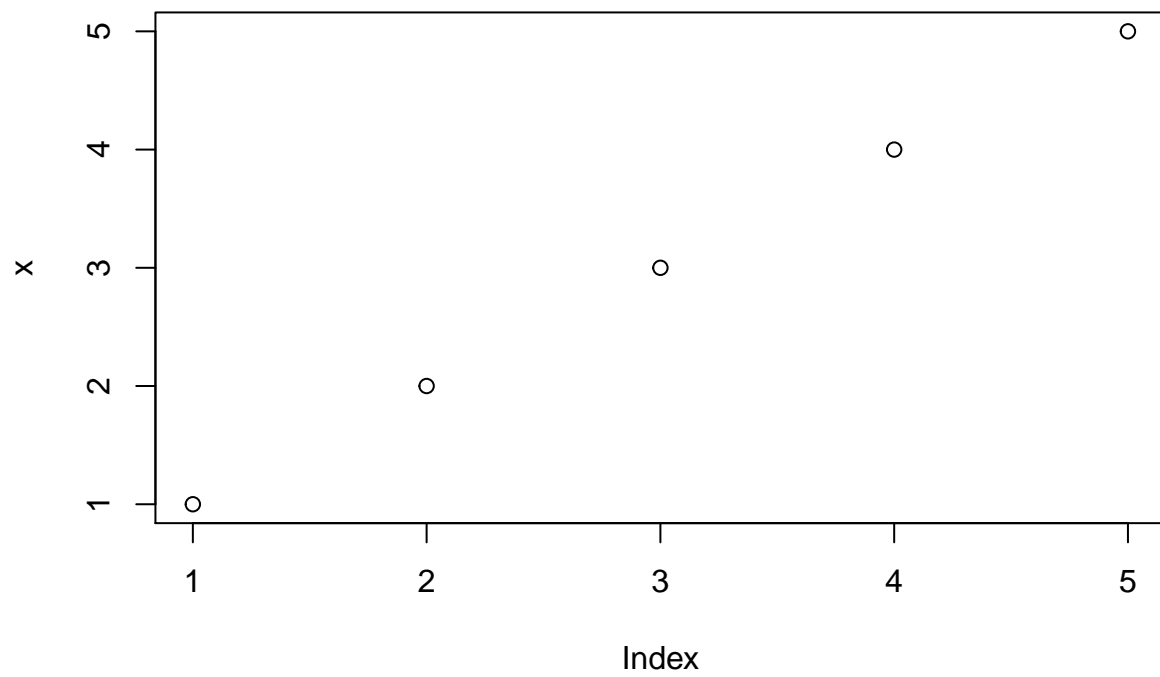
The methods are divided into two major categories: single index tag (SIT) and double index tag (DIT) methods.

The list of methods studied in this document are shown below: - SIT 1:  $\lambda_a$  is estimating at spawning by age - SIT 2:  $\lambda_a$  is estimating at spawning by age updated after successive fisheries - SIT 3:  $\lambda$  is estimated at release - SIT 4:  $\lambda$  is estimated at release and updated after successive fisheries - SIT 5:  $\lambda$  estimated from total exploitation rate and escapement and updated after successive fisheries

## SIT

### SIT 1

```
# input R code here. Examples: define R list
x = c(1, 2, 3, 4, 5)
# make plot
plot(x)
```



SIT 2