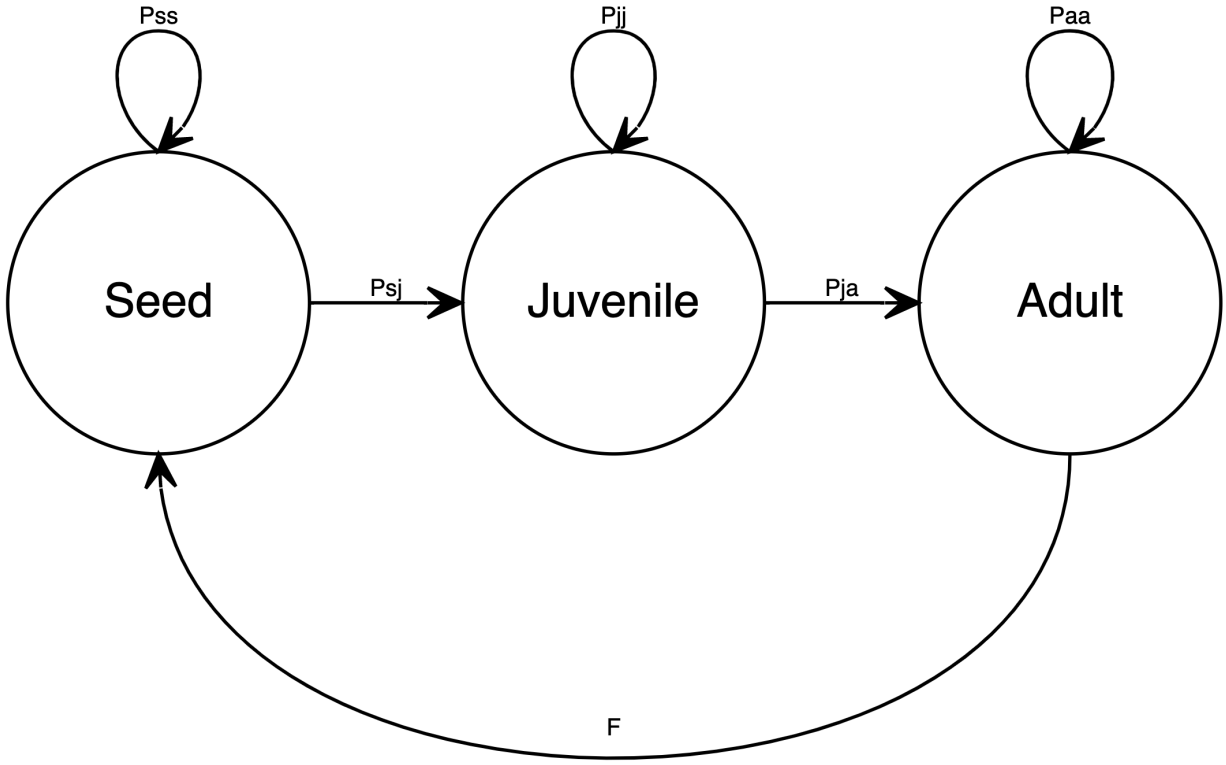
# DisturPloidy Life Cycle Graph




### Probability of remaining a seed (Pss)

$Pss = probability \;\; of \;\; seed \;\; survival$

### Probability of transitioning from a seed to a juvenile (Psj)

$Psj = probability \;\; of \;\; germination$

### Probability of remaining a juvenile (Pjj)

$Pjj = (growth \;\; rate * size < adult \;\; size \;\; threshold) * probability \;\; of \;\; juvenile \;\; survival$

The largest juveniles have the highest probabilities of survival.

### Probability of transitioning from a juvenile to an adult (Pja)

$Pja = (growth \;\; rate * size >= adult \;\; size \;\; threshold) * probability \;\; of \;\; surviving \;\; competition$

The largest adults have the highest probabilities of surviving competition. Carrying capacity controls how many adults can survive on each landscape cell.

## Probability of remaining an adult (Paa)

$Paa = probability\ \ of\ \ adult\ \ survival * probability\ \ of\ \ surviving\ \ competition$

Adult survival probability can be modified according to the occurance of inbreeding.

## Fecundity (F)

The number of seeds produced by an adult:

$F = number\ \ of\ \ ovules * probability\ \ of\ \ fertilisation$

Probability of fertilisation can be modified according to various mating rules:

- Uneven matching of parental ploidy levels
- Selfing polyploid
- Selfing diploid
- Triploid maternal progenitor