**Working definitions**:

**Fecundity** : Number of (fertilized?) eggs that an individual female carries.

* **Inference:** Individual fecundity estimates depend on weighing of dried and cleaned egg masses, combined with weighed and counted sub-sample.

**Homogenous sample**: A group of crab with the same life history characteristics, i.e. reproductive cycle . Note that the sample may contain individuals at different stages in their cycle.

**Reproductive cycle** : Refers to whether a female follows a one or a two-year incubation cycle.

* **Inference**: In a homogenous sample (i.e. from a particular location and year), the presence of two distinct groups among gonad sizes, hepatopancreatic sizes or egg development would ostensibly signal the presence of a two-year reproductive cycle. In contrast, inference of a one-year reproductive cycle is more difficult. In a homogenous sample, the presence of only a single group among observations might be due to the presence of a one-year cycle, or the presence of a first-year or second-year group following a two-year reproductive cycle.

**Incubation year** :

* **Inference**: In a homogenous sample

**Egg loss** : Processes can engender loss of eggs during incubation. These include parasites, unfertilized eggs, low egg quality, low female health or egg predation.

**Maturity stage** :

* **Primiparous** : Females carrying their first egg clutch.
  + Fecundity varies mainly by size. Sample variability about the mean is low and symmetric.
  + Egg loss is egg-spected to be low, given that females are generally healthy at this stage.
* **Multiparous** : Females carrying their second, or possibly third clutch.
  + At the onset, fecundity is higher than that of primiparous females.
  + Fecundity of new multiparous females (~ shell condition 3) have variability which is low and generally symmetric about the mean.
  + Egg loss may be more present than in primiparous females, but incidence is generally low.
  + Fecundity of old multiparous females (shell conditions 4 & 5) are much more variable and left-skewed about the mean, due to more pronounced egg loss. These include females in the second year of their 2-year incubation cycle, or females with their third clutch with 1-year incubation cycles.