

Gynandromorphs

→ A gynandromorph is an organism that contains both male and female characteristics. The term comes from the Greek

gynē → female, andro- male, morph- morphology

- and is used mainly in field of entomology.

→ Gynandromorph organisms are butterflies, moths, insects, wherein both types of body part can be distinguished physically due to sexual dimorphism.

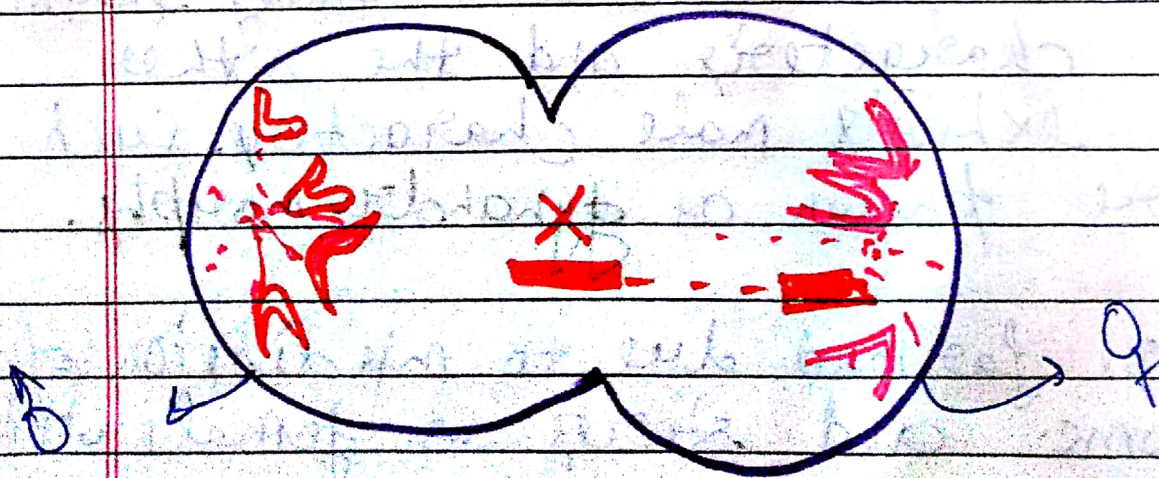
→ In *Drosophila*, occasionally flies are obtained in which a part of their body exhibits female characters and the other part exhibits male characters. Such flies are known as gynandromorphs.

→ These are formed due to misdivision of chromosome and starts as female with $2A + 2X$ - chromosomes.

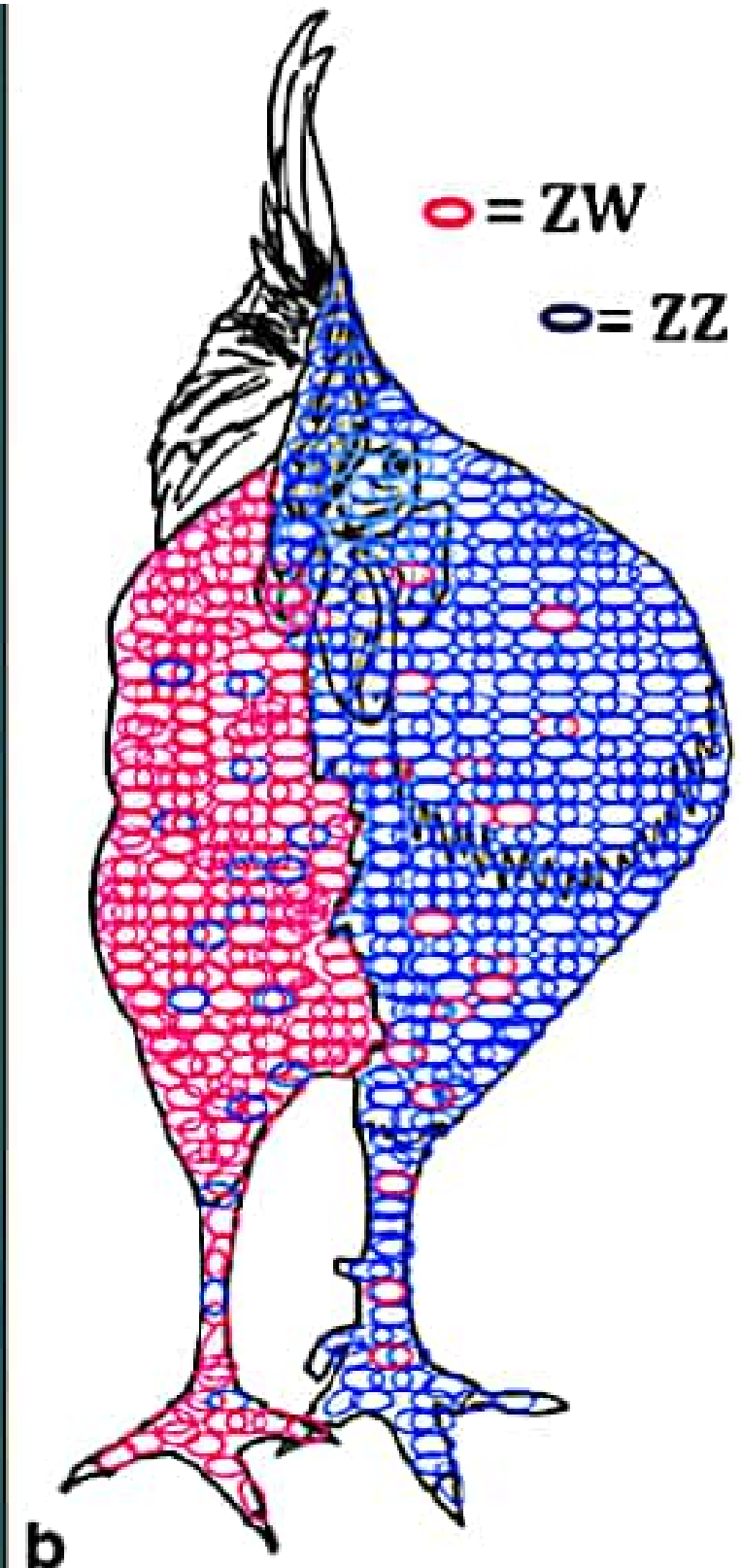
→ One of the X-chromosome is lost during the division of the cell with the result that one of the daughter cells possesses $2A+2X$ chromosomes.

→ The other $2A+X$ of this event happens during first zygotic division, two blastomeres with unequal number of X-chromosome are formed.

→ The blastomere with $2A+2X$ -Chromosomes develops into female half, while the second blastomere with $2A+X$ chromosomes produces male half and the resultant fly is a bilateral gynandromorph.









The occurrence of gynandromorphs clearly indicates that the number of X-chromosomes determines the sex of the individual.