

Module 3 Report Template Life Cycle of a Chosen Species

Name and student number of each teammate

Our selected plant species for Module 3 is *Senecio Perennis*

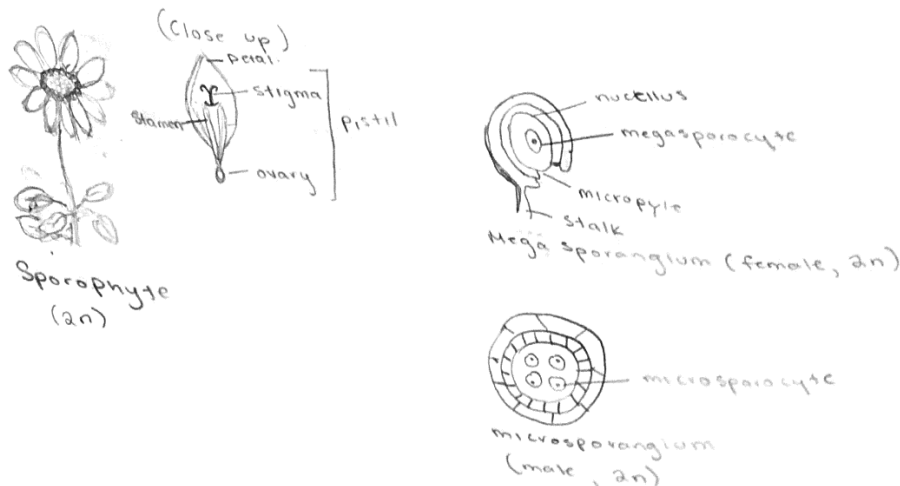
DO NOT IN ANY MANNER CHANGE THE SIZE OR FONT OF THE TEXT OR THE FORMAT OF THE PRESENT REPORT TEMPLATE. Type in your answers under each question. Your references should be cited as footnotes as described in the document Instructions for Citing References.

This report template is to be completed in teams (individual submissions will not be accepted).

ONLY THE GROUP MEMBER WHOSE SURNAME (NOT THE FIRSTNAME) COMES FIRST IN ALPHABETICAL ORDER MUST SUBMIT THE FINAL VERSION OF THE PRESENT REPORT TEMPLATE. DUE TO LIMITATIONS WITH BRIGHTSPACE, CORRECTION FEEDBACK WILL BE RETURNED ONLY TO THE GROUP MEMBER WHOSE NAME COMES FIRST IN ALPHABETICAL ORDER, BUT THE SAME MARK WILL BE ASSIGNED TO EACH OF THE GROUP MEMBERS. THE STUDENT WHO RECEIVES FEEDBACK IS THEREFORE EXPECTED TO SHARE THIS INFORMATION WITH OTHER GROUP MEMBERS.

Assessment of the Life Cycle of a Plant Species

In module 2, you observed and assessed plant biodiversity at a field site. During the site visit, you also documented the visible stages of the life cycle for one abundant species belonging to your pre-assigned phylogenetic group. In the present module, you will use your field observations and other published information to characterize the life cycle of your chosen species.



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- Describe the relative size and autonomy of each of the two generations of your species. Can each of them perform photosynthesis and absorb water and minerals through a vascular system?

o The sporophyte generation of the *Bellis perennis* L. is relatively 10-15 cm tall and 15-20cm wide. The sporophyte generation of the *Bellis Perennis* is most known for its white petals and yellow center. Its leaves are spoon-shaped and form a rosette at the base of the plant.⁵ The gametophyte generation of the *Bellis perennis* L. are typically smaller than the size of a needle with tufts of hair called a pappus which helps wind carry the tiny seeds. Only the sporophyte generation can perform photosynthesis and absorb water and minerals through a vascular system.

Sexual and asexual reproduction

- Are there some organs or tissues that are typically associated with sexual reproduction? If yes, include another image with a closeup of these organs and use arrows and labels to indicate their name and ploidy.

o The female reproductive organs the *Bellis perennis* L. has a central carpel, two lobed stigma, and an ovary. The male reproductive organ is the stamen which make up the center part of the center disc, the stamen creates pollen which are the male reproductive. *Bellis perennis* L. also have hermaphrodite disc florets so they contain both anther and stigma parts. The ploidy begins at $2n$ and then after meiosis it is n ⁶.

⁵ [N/A, April 6, 2020, Characteristics of Daisy Plant](#)

⁶ [Gilbert SF, 2000, Developmental Biology](#)