

PROJECT 4-10

FLORAL CLOCKS

PROBLEM

The timing of flowers opening and closing and of pollen shed etc. is well known for European and horticultural plants. In fact Linnaeus in 1748 made a floral clock in his garden so that you could roughly tell the time of day by seeing which flowers were out! Similar information is not available for most W. Australian wildflowers.

INFORMATION

1. It is important to record the date and weather conditions when you make your observations.
2. Some species have flowers open only once, others several times. Do learn about the structure of
3. For some species like Hakeas and Banksias with spikes of flowers the number of newly open flowers as well as the time of opening is of interest.
4. You may also wish to record time of pollen shed and nectar production.
5. You may wish to experiment with some flowers to see if you can modify the time of opening by artificially increasing the day length or altering the temperature. Will they continue to open and close under constant environmental conditions?

DESIGN OF PROJECT

1. What might control time of flower opening and pollen shed? Do you expect differences in opening time on cooler days, wet days, and overcast days?
2. Do you expect any difference in time of pollen shed between flowers pollinated by bees or moths, or wind?
3. For species with a long flowering period do you expect any difference in the time of opening at the beginning and end of the flowering season?

REFERENCES

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- Proctor, M. and Yeo, P (1973). The Pollination of Flowers (Collins : London).