

Introduction to Botany. Lecture 15

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Outline

- 1 Questions and answers
- 2 Life cycle
 - Evolution of life cycles
- 3 Tissues
 - Origin of tissues



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Previous final question: the answer

Describe the difference between haplont and diplont

- Haplont n , capable to sexual reproduction
- Diplont $2n$, capable to asexual reproduction



Life cycle

Evolution of life cycles

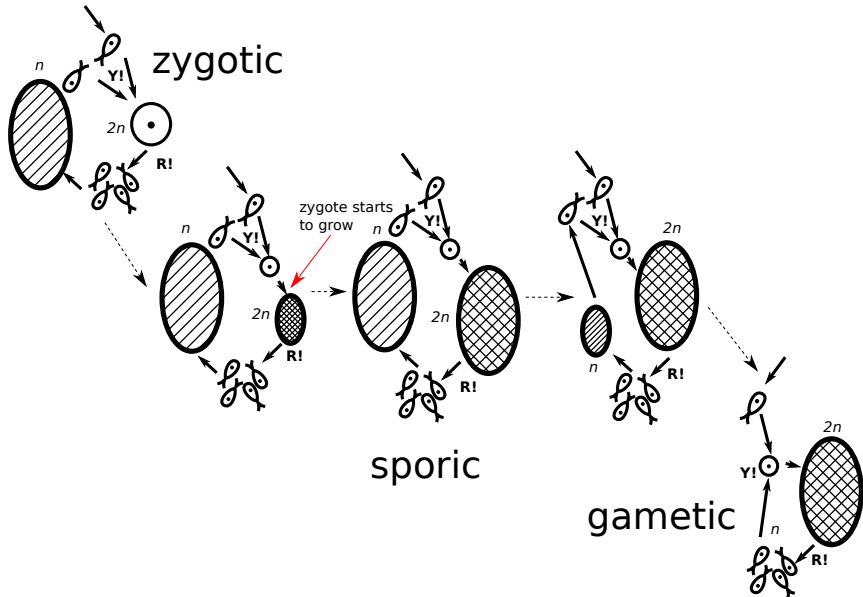


3 cycles

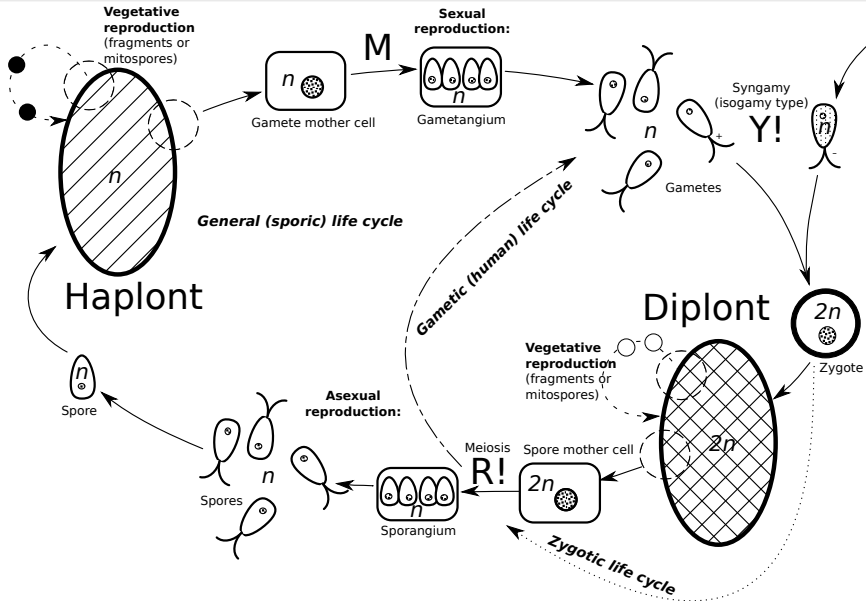
- **Zygotic:** $Y! \rightarrow R!$, no diplont, many protists
- **Gametic:** $R! \rightarrow Y!$, ho haplont, animals and few protists
- **Sporic:** both haplont and diplont, many protists and all plants₂



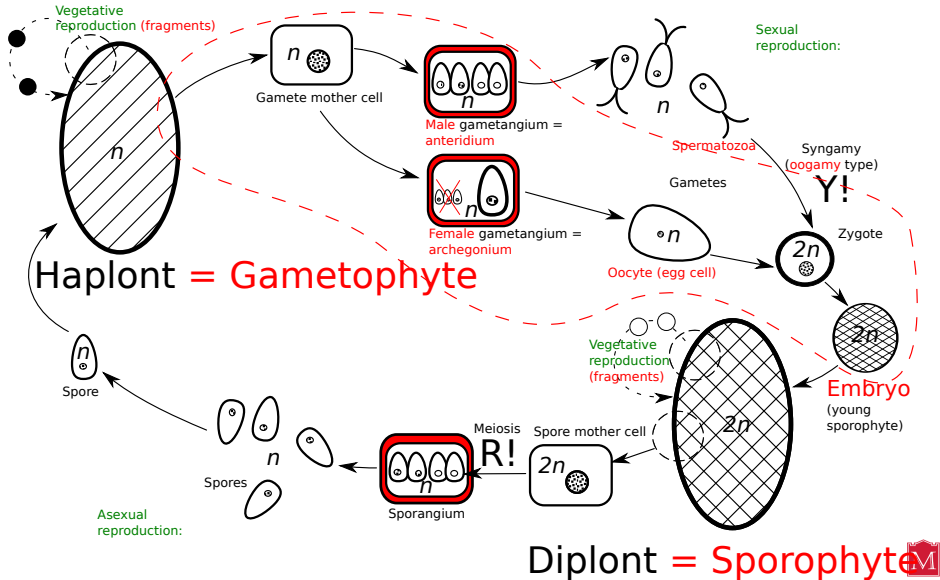
Diplonts grow, haplonts reduce



Life cycle (again)



Life cycle of plants₂



Tissues

Origin of tissues



Origin of tissues and organs of plants: first steps



Origin of tissues and organs of plants: first steps

Why did plants go to the land? Which problems did they meet and how did they resolve them? What was the plant way of acquiring tissues comparing with animals?



Summary

- **Zygotic** life cycle has no *diplont*, **gametic** life cycle has no *haplont*, **sporic** life cycle has both *haplont* and *diplont*
- The structure of plant body, its organs and tissues is a result of land colonization



For Further Reading



A. Shipunov.

Introduction to Botany [Electronic resource].

2015.

Mode of access:

http://ashipunov.info/shipunov/school/biol_154

