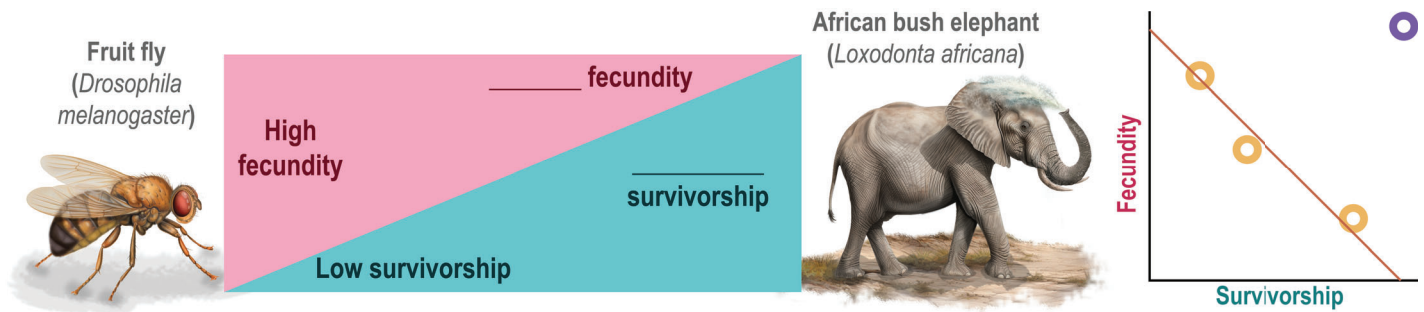


TOPIC: LIFE HISTORY

- ◆ Energy/resources/time are limited, so organisms must strategically allocate them & make fitness _____.
- ◆ **Life History:** any _____, strategy, or *trade-off* impacting survivorship, fecundity, & growth in its lifetime.
 - **Survivorship:** _____ of individuals *surviving* to a given age (_____ of *mortality*).
 - **Fecundity:** average number of viable _____ produced per reproductive event or per lifetime.
 - One of the most important life history trade-offs is between survivorship & fecundity.



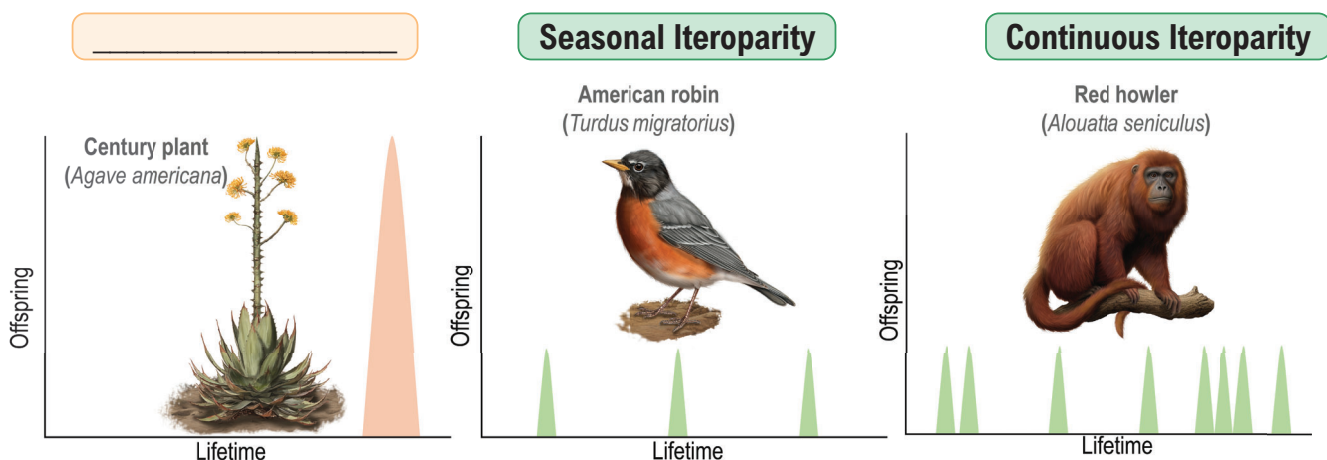
EXAMPLE

Which of the following is least likely to occur in nature?

- An organism that can produce hundreds of offspring per year & live up to 80 years old.
- An organism that produces fewer than 10 offspring per year & can live up to 20 years old.
- An organism that produces hundreds of offspring per year, >50% of whom survive to adulthood.
- An organism that produces fewer than 5 offspring per year, 90% of whom survive to adulthood.

Life History: Population Reproductive Strategies

- ◆ Different populations of species _____ in how often they reproduce.
 - **Semelparity:** a single (_____ -time), *massive* reproductive event after which the organism typically dies.
 - **Iteroparity:** _____ reproductive events over the organism's lifetime.
 - Can be _____ (distinct breeding seasons) or _____ (reproduce at any time).



TOPIC: LIFE HISTORY

EXAMPLE

Complete the table by filling in the blanks.

Semelparity	Iteroparity
Reproduce _____	Reproduce repeatedly
Produces _____ offspring	Produces _____ offspring at a time
Most offspring die before adulthood	Offspring more likely to survive to adulthood
Offspring are left to survive on their own	Offspring may be _____ for (species-dependent)



PRACTICE

Which of the following is an example of semelparity?

- a) An agave plant which stores energy throughout life, then releases many seeds before dying.
- b) Fruit flies, who can lay hundreds of eggs per week once they reach maturity.
- c) A female labrador who has 3 puppies one year, then another 5 puppies the next year.
- d) None of the above.