

Exercise walk-through

8.5

Community Ecology

AP Biology

Community ecology

A **community** is all the species interacting in one area. **Symbiosis** sorts by who benefits:

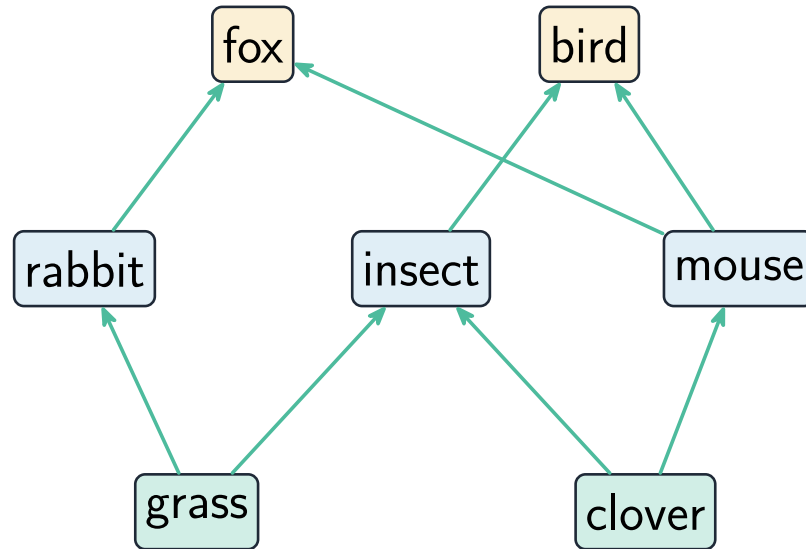
- **mutualism** : both win
(+/+)
- **commensalism** : one wins (+/0)
- **parasitism** : one harmed (+/-)

A **keystone species** (sea otter) holds up the whole community.



Mutualism: both partners gain

A food web links several food chains together



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Exercises 2.1-2.3

2.1 State the effect (+/−) on each partner in predation. [1]

2.2 Name the interaction where both species benefit. [1]

2.3 Classify a tick feeding on a dog. [1]

Exercises 2.1-2.3

2.1 State the effect (+/−) on each partner in predation. [1]

2.1

- Predator +, prey −
-

2.2 Name the interaction where both species benefit. [1]

2.2

- Mutualism
-

2.3 Classify a tick feeding on a dog. [1]

2.3

- Parasitism

Exercise 3.1

3.1 An interaction that benefits one species and harms the other is

[1]

☐

A mutualism

B commensalism

C parasitism

D competition

Exercise 3.1

3.1 An interaction that benefits one species and harms the other is

[1]

☐

A mutualism

B commensalism

C parasitism

D competition

3.1 C

- parasitism (or predation) benefits one and harms the other

Exercise 3.2 (a)

3.2 A bird eats insects stirred up by a grazing buffalo; the buffalo is unaffected.

(a) Name the interaction.

[1]

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3.2 A bird eats insects stirred up by a grazing buffalo; the buffalo is unaffected.

(a) Name the interaction.

[1]

(a)

- Commensalism

Exercise 3.2 (b)

3.2 A bird eats insects stirred up by a grazing buffalo; the buffalo is unaffected.

(b) State the effect on each partner.

[2]

Exercise 3.2 (b)

3.2 A bird eats insects stirred up by a grazing buffalo; the buffalo is unaffected.

(b) State the effect on each partner.

[2]

(b)

- The bird benefits (+); the buffalo is unaffected (0)

Exercise 3.3

3.3 Explain why two species competing for exactly the same resources cannot coexist indefinitely. [2]

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3.3

- One species will use the shared resource slightly more efficiently and outcompete the other, which declines or is excluded (competitive exclusion)