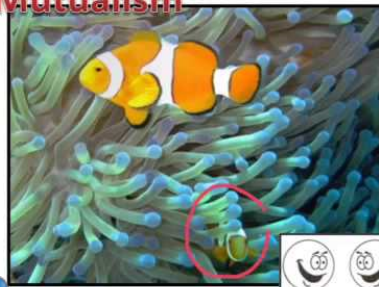


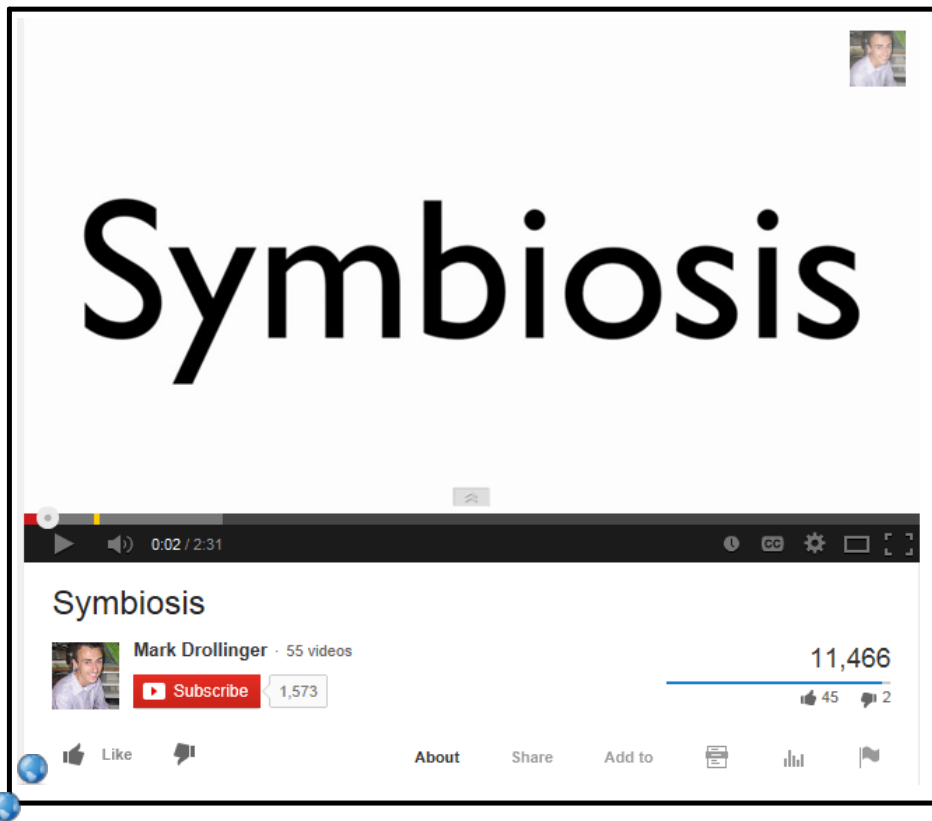
Thanks
Franky
#EcoPoints

Mutualism



REVIEW





The image shows a screenshot of a YouTube video player. The video title is "Symbiosis" and it is by the channel "Mark Drollinger", which has 55 videos. The video has 11,466 views, 45 likes, and 2 dislikes. A "Subscribe" button is visible with 1,573 subscribers. The video player interface includes a progress bar at 0:02 / 2:31, a play button, volume control, and various settings icons. The video content area displays the word "Symbiosis" in a large, black, sans-serif font. A small profile picture of Mark Drollinger is in the top right corner of the video frame. The video player is set against a white background and is framed by a black border.

CO-EVOLUTION...



Not



Sea Lion



Otter

KESAB Patawalonga and Torrens Waterwatch

Activity 6 – FOOD WEB WORKSHEET

Read through the text. Design a food web and answer some questions from the following information:



The Torrens River starts in the Adelaide hills as several small creeks which join to form one larger creek. As it winds its way down the hills to the city, more and more water is added. It generally only flows in winter, when the rainfall is sufficient, and dries up into small waterholes during the summer. A weir is used to hold water permanently in the city. It is surprising how many organisms rely on the river for their existence.

Algae can be observed growing in the water, as well as water ribbons (*Triglochin procerum*). On the water's edge, fluffy topped reeds such as the common reed (*Phragmites australis*) and the bulrush (*Typhus sp*) grow. Water boatmen are observed swimming in the water. They are eating the algae and reeds. Mosquito larvae also eat the algae while the freshwater snail eats both the algae and water ribbons. A long necked tortoise pokes its nostrils above the water. The tortoise eats the algae too, as well as feeding on snails, boatman and yabbies. The water boatman provides food for many species including fish, frogs, diving beetles and dragonfly larvae. The yabbies are scavengers, feeding on rotting plant and animal matter, while bacteria also help break down this dead material by digesting it and recycling nutrients in the food web. The mosquito larvae are considered a delicacy for several varieties of fish (such as the big-headed gudgeon or the congoli).

Birds are in abundance along the waterway. Pacific black ducks are feeding on fish, dragonfly larvae and diving beetles, while the occasional visiting pelican feeds on fish, frogs and dragonfly larvae. Black swans make a beautiful sight, bending their elegant necks to forage under the water grazing on the water ribbons, snails and an occasional fish. The white-faced heron makes a meal of the fish and frogs. The purple swamp hen runs quickly from the bulrushes where it feeds on the tender growth of the bulrushes and also makes its nest. On the bank a blue-tongue lizard is sunning itself in a warm rock. It snaps at the dragonflies and diving beetle and beware the unwary frog, the lizard will sometimes eat them too.

1. Use the pictures provided to construct a food web

It is best to start with the producers and build up. When you are happy with your placement, glue/write the animals in place and complete the arrows to show the flow of energy. You may need to read through parts of the text again.

2. Divide the organisms into the following categories:

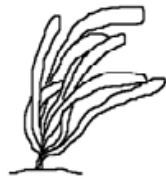
Producers	1 st Order Consumer	2 nd Order Consumer (and higher)

KESAB Patawalonga and Torrens Waterwatch

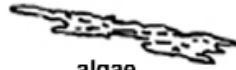
Wetland Food Web Images



bulrushes



water ribbons



algae



mosquito larvae



frog



heron



mosquito



reeds



dragonfly



fish



swamp hen



freshwater snail



lizard



water boatman



diving beetle



dragonfly larvae



tortoise



black swan



pelican



yabby



duck

SOLUTIONS...

1. Complete the chart.

(10)

Producers	First Order Consumer	Second Order Consumer and Higher
<ul style="list-style-type: none"> - algae - water ribbons - common reed - bulrush 	<ul style="list-style-type: none"> - water boatman - mosquito larvae - freshwater snail - tortoise - gabby - black swans - swamp hen - dragonfly - bacteria 	<ul style="list-style-type: none"> - tortoise - fish - frog - diving beetle - dragonfly larvae - pacific black duck - pelican - black swan - heron - lizard

2) Food Web: Cut and layout organisms FIRST...then tape/glue.

*** All possible food chains [32 total] are...**

5

- algae → water boatman → dragonfly larvae → pelican
- algae → water boatman → dragonfly larvae → duck
- algae → water boatman → diving beetles → duck
- algae → water boatman → diving beetles → lizard
- algae → water boatman → tortoise

4

- algae → water boatman → fish → pelican
- algae → water boatman → fish → heron
- algae → water boatman → fish → black duck
- algae → water boatman → fish → black swan

4

- algae → mosquito larvae → fish → heron
- algae → mosquito larvae → fish → black swan
- algae → mosquito larvae → fish → pelican
- algae → mosquito larvae → fish → black duck

2

- algae → freshwater snails → tortoise
- algae → freshwater snails → black swan

1

- algae → tortoise

- 1 [Common reed → water boatman → tortoise
- 2 [Common reed → water boatman → dragonfly larvae → pelican
Common reed → water boatman → dragonfly larvae → duck
- 2 [Common reed → water boatman → diving beetles → lizard
Common reed → water boatman → diving beetles → duck
- 4 [Common reed → water boatman → fish → black swan
Common reed → water boatman → fish → heron
Common reed → water boatman → fish → pelican
Common reed → water boatman → fish → black duck
- 3 [Common reed → water boatman → frog → pelican
Common reed → water boatman → frog → lizard
Common reed → water boatman → frog → heron

- 2 [water ribbons → fresh water snails → black swan
water ribbons → fresh water snails → tortoise

1 [water ribbons → black swan

1 [bulrush → purple swamp hen

*** Answers will vary...be sure to have correct number of species!**

3. Write your food chains below.

(7)

(i) water ribbons → black swan
algae → tortoise
bulrush → purple swamp hen

water ribbons → freshwater snails → black swans

(ii) algae → freshwater snails → black swan
producer first consumer second consumer

(iii) common reed → water boatman → diving beetle → lizard
producer herbivore first carnivore second carnivore

LAB: Barn Owl Pellet Dissection

[Lab - Owl Pellet Dissection.pdf](#)



Check out these after you complete the lab...



Attachments

Lab - Owl Pellet Dissection.pdf