

# Unit 3 Ecosystems

## Chapter 6 & 7

\* The diagrams referred to in this presentation have been scanned from the text book.



# Part 1

The Web Of Life p. 92

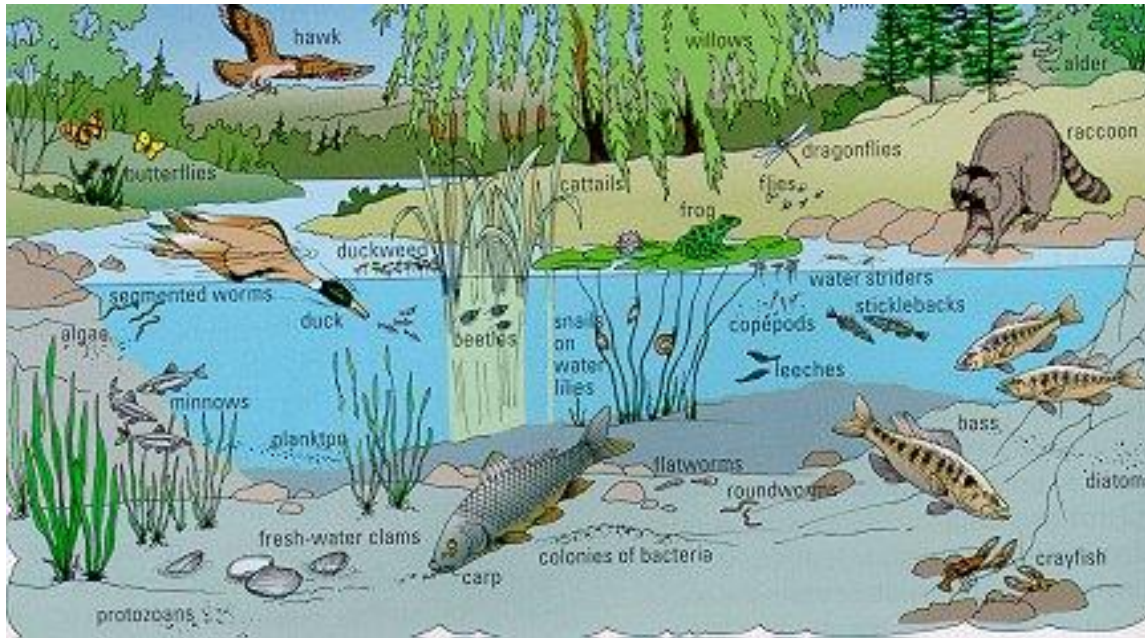
&

Food Relationships p. 93

Questions #3-9 in the book




# 3. Define Ecosystem

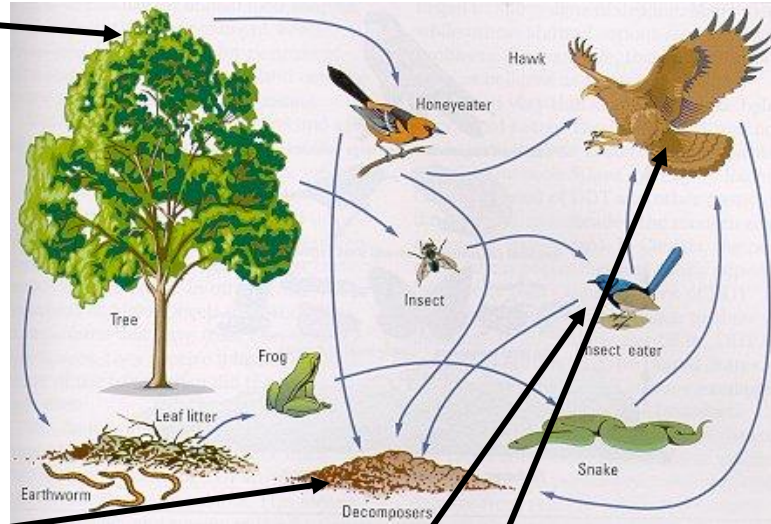



Ecosystem = the network of relationships among plants, animals and the non-living constituents in an environment.




## 4. Differentiate the terms producers, consumer, decomposers. P. 93

 Producer = a plant which can synthesize carbohydrates using carbon dioxide and the sun's energy.



-  Decomposers = Simple organisms that obtain their food from dead organisms and wastes.

 Consumers = All those organisms in trophic levels other than producers. Consumers eat their food.



# 4. Continued; Consumers, producers & decomposers

## Similarities

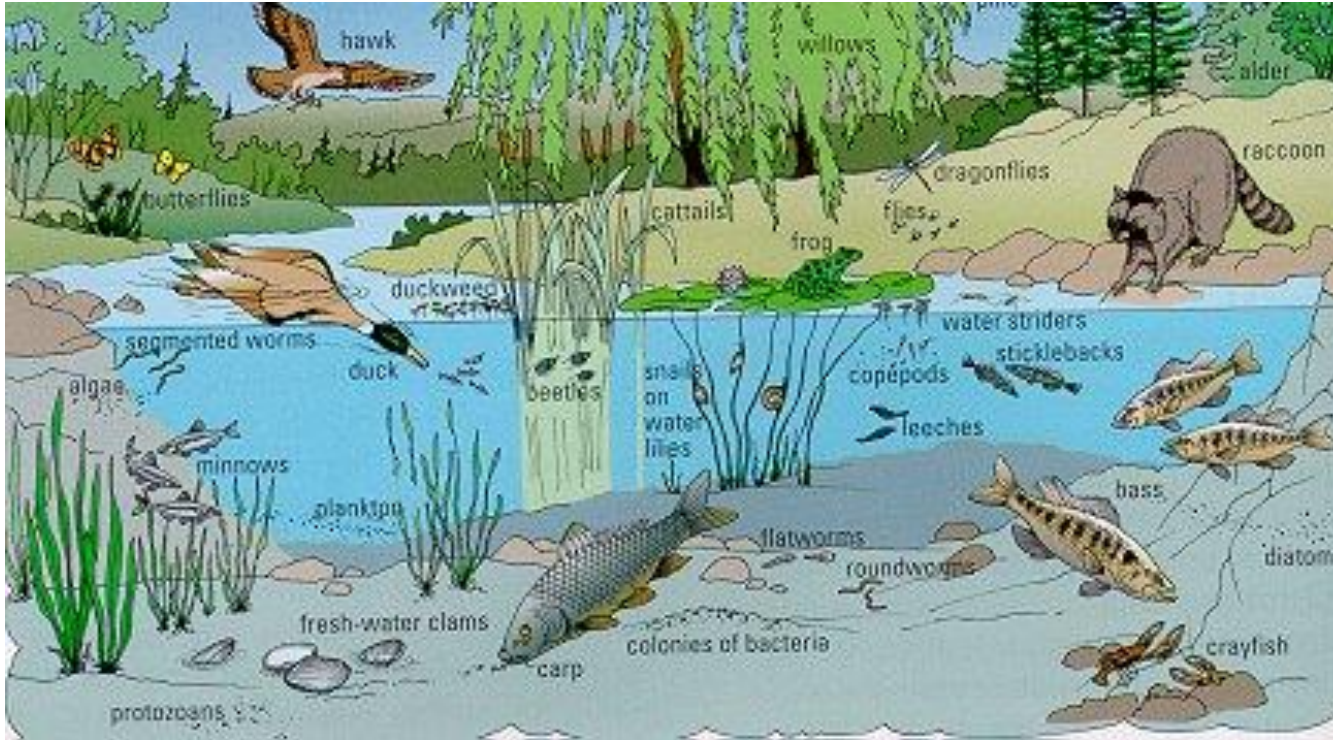
- 📖 All three are terms referring to the way organisms obtain food & energy

## Differences

- 📖 The way they obtain food > producers make it, Consumers eat it, decomposer feed on wastes & dead material.



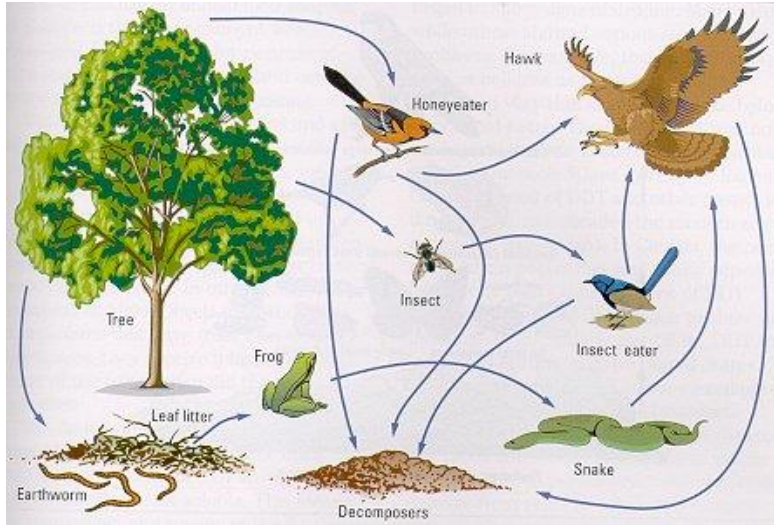
## 5. Identify examples of producers & consumers



📖 Consumers = all the animals, Raccoon bass, duck etc.

📖 Producers = all the plants, Duck weed, Willow, cat tails etc.

## 6. Differentiate the terms food web & food chain. P. 94



📖 Food chain = linear sequence representing the nutrition of various species from the simplest plant to the top carnivore.

📖 Food web = a series of interconnecting food chains in an ecosystem.



## **6. Continued Differentiate the terms food web & food chain. P. 94**

### **Similarity**

- 📖 Both food chains and food webs show the flow of nutrients and energy in an ecosystem.

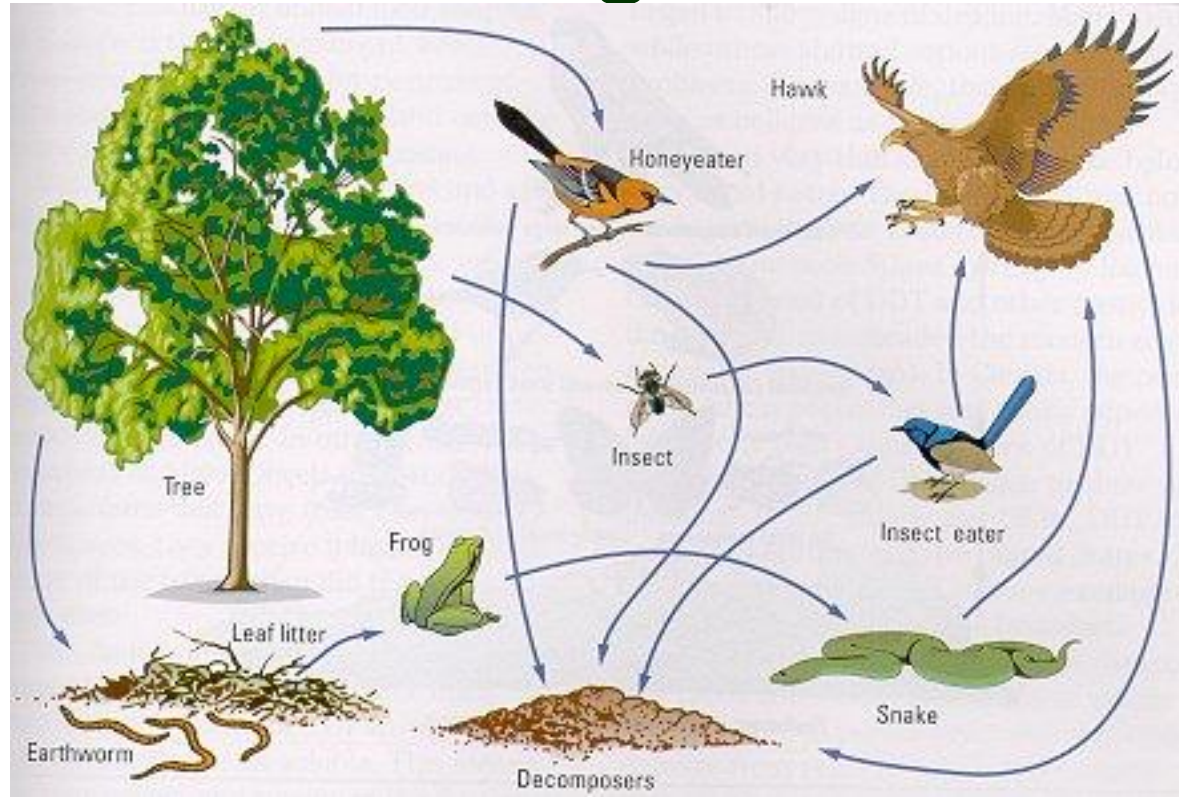
### **Difference**

- 📖 Food web is more complex
- 📖 Food web is composed of several food chains
- 📖 Food web is a more realistic picture of an ecosystem.





# 7. Give an example of a food chain from fig. 6.4. P. 95

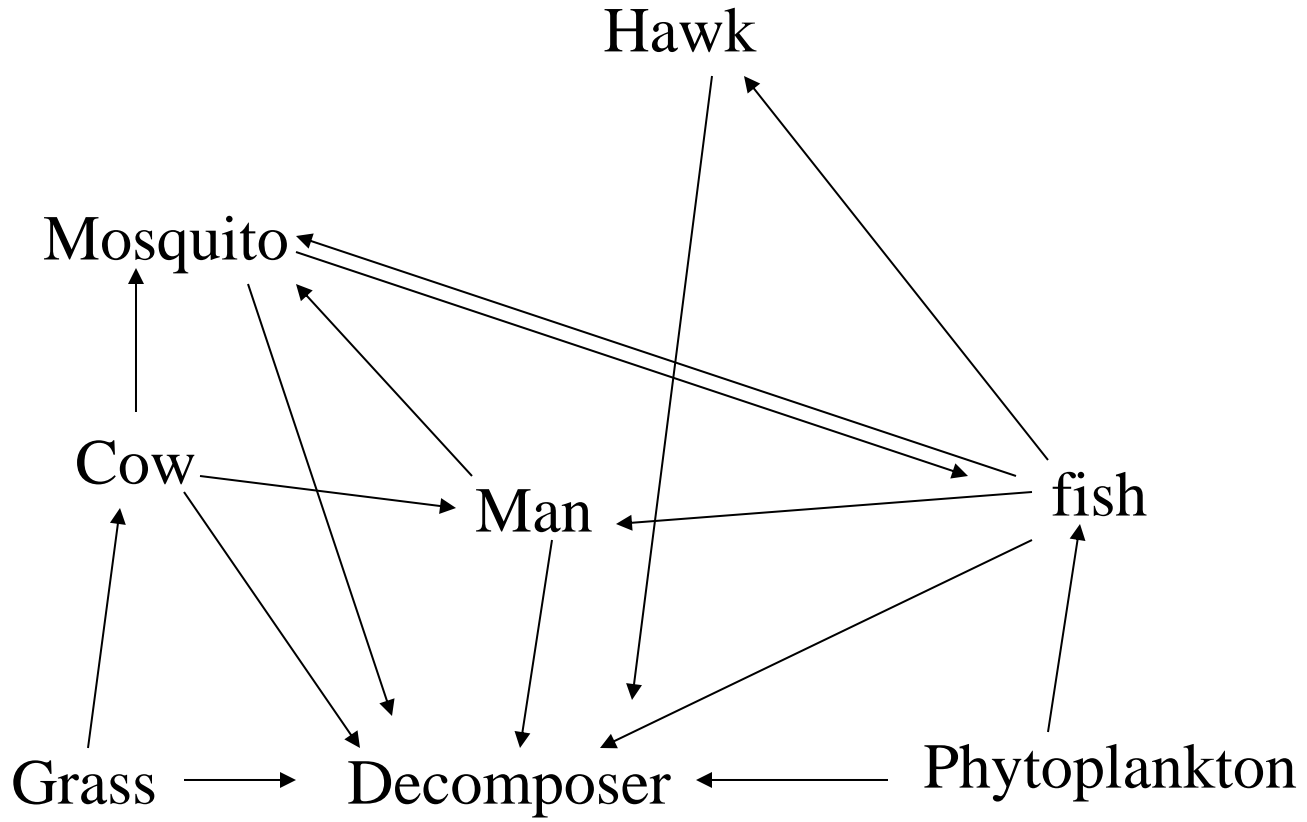


Tree → insect → insect eating bird → hawk  
Producer      Primary consumer      2<sup>nd</sup> order consumer      3<sup>rd</sup> order consumer

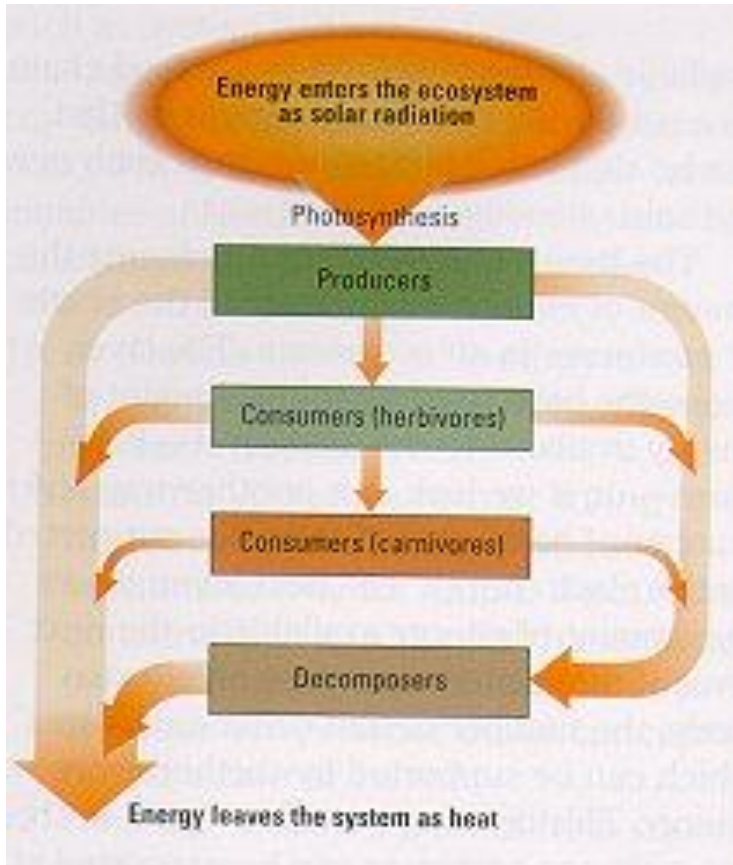
Note; The arrows indicate the flow of energy & nutrients



# 8. Draw an example of a food web containing humans. P. 94



# **\*9. Using figure 6.5 summarize the main energy flows in an ecosystem p. 95**



- ☞ Sun = source of all ecosystem energy
- ☞ Producers make food via photosynthesis
- ☞ Consumers eat plants and other consumers to get energy
- ☞ Each time energy moves from one organism to another, energy leaves the system in the form of heat.
- ☞ Decomposers return nutrients to the soil but energy is not recycled.

