



Fun Fact Sheet - Fabulous Food Chains

1. A food chain is a way to describe how each living thing gets its food or energy and how that energy is passed from one living thing to the next up the food chain as they are consumed. Most food chains begin with plants and ends with large predatory animals (Adam et al. 2011).
2. Food chains start with primary producers. On the reef, the most common producer is phytoplankton, a marine organism that produces its own food through photosynthesis (Miller et al. 1996).
3. Primary producers on the reef also include, algae, seagrasses, and coral (specifically the zooxanthellae within the coral polyps) (Miller et al. 1996).
4. Every other living thing in the food chain which does not make its own food is a consumer; consumers can be herbivores, carnivores, or omnivores (Miller et al. 1996).
5. The feeding relationships in an ecosystem consist of many food chains, which are all interconnected into a larger network called a food web (Encyclopaedia Britannica 2017).
6. On average, only 10% of the energy from an organism is transferred to its consumer. This means that a top predator (also known as an apex predator) is supported by millions of primary producers from the base of the food web (University of Waikato 2007).
7. A “keystone species” is a species that has a greater impact on a food web than you would expect in relation to their abundance. In the Atlantic Ocean and Caribbean Sea, the long-spine sea urchin (an herbivorous consumer) is considered a keystone species (Adam et al. 2011).
8. Apex predators (top carnivores) such as sharks, stingrays, and groupers are very important in keeping the ocean’s fish populations in balance (WildAid 2005).
9. Apex predators hunt efficiently by feeding upon the older, sick, or slower fishes in a population, thus preventing the spread of disease and lowering the reproduction rates of less healthy and genetically unbeneficial fishes (WildAid 2005).
10. Feeding fishes from any level of the food web is unnatural and can cause a learned behaviour in the fish called conditioning. Conditioning can cause those fish being hand-fed to be more vulnerable to predators and will keep fish from feeding on their natural food source. Feeding by humans may cause a feeding frenzy in a small area that could lead to injury. (REEF 2010)
11. In the Cayman Islands, feeding fish is illegal according to the Cayman Islands National Conservation Law. More information can be found here:
website: www.doe.ky
phone: 1-345-949-8469
email: DOE@gov.ky