



## Science questions for grades 9-12 Tiger

Read about the tiger at

<http://www.bigcatrescue.org/tiger.htm>

Siberian tigers have yellowish, thick fur. Bali tigers have brighter and shorter fur. In one species of tiger, the gene for yellowish fur is dominant while the gene for reddish-orange fur is recessive. A male with yellowish and a female with yellowish fur produce a female offspring with reddish-orange fur. Which most likely describes the genes of the parent tigers?

- Both parents carry the recessive gene
- The male parent carries the recessive gene but the female parent does not
- The female parent carries the recessive gene but the male parent does not
- Neither parent carries the recessive gene; the reddish-orange fur was a spontaneous mutation

Biomass is the mass of living tissue found in living organisms (not water) For example, a human weighing 100 kilograms would only have 30 kilograms of biomass per meter squared because 70% of their mass is water. In a marsh in a Sumatra ecosystem, the weight of the biomass was calculated :

Primary Producer	Primary Consumer	Secondary Consumer	Tertiary Consumer
809 grams per Meter <sup>2</sup>	37 grams per Meter <sup>2</sup>	11 grams per Meter <sup>2</sup>	1.5 grams per Meter <sup>2</sup>

According to the numbers above, which trophic level would have the SMALLEST percentage of the total biomass?

- Primary producer
- Primary consumer
- Secondary Consumer
- Tertiary Consumer