

Critical thinking on what is the biotic potential of a population

[Countries](#), [England](#)



Biotic potential is a theoretical estimation of the highest possible reproductive capability of an organism in an environment where resources are optimal or unlimited. Biotic potential is usually expressed in terms of percentage or proportional increase per annum. For instance, a biotic potential of elephants in a part can be expressed as follows. The elephant population went up by 5 percent over the past one year. It can also be explained by the time taken for the population to double in numbers, simply called doubling time. When studying diseases, biotic potential can be compared to the infection force, which is the number of organisms each infected organism infects in a population. A biotic potential is very difficult to attain because population sizes are restricted by factors such as the environmental resistance. Basically, biotic potential can be achieved when the mortality rate is at its minimum and the birth rate at its maximum.

Where can you find the highest population in the world?

Highest populations are very difficult to achieve for any organisms. However, there are places where populations of organisms are close to the biotic potential. The population sizes are highest when conditions of the organisms' survival are optimal. These conditions include good health, less predation and unrestricted food resources. Good health is characterized by low incidents of disease and infections which may lead to death. Predation must also be minimal or absent altogether. This will ensure the organisms are not predated on to reduce their numbers. Sufficient food resources ensure that organisms do not die because of hunger or pressure on food resources. In places with these characteristics, the fertility rates are very high, the birth

rates increase, death rates are minimal and the life expectancy is the highest possible.

References

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