

The enemy of my enemy is my friend.

-a common proverb of unknown origin.

slate.com/culture/2013/05/star-trek-into-darkness-fact-checked-was-the-enemy-of-my-enemy-guy-really-killed-by-his-friend.html

Biological Control of pests (or 'biocontrol') is a general term for:

Utilizing living organisms to reduce pest populations.

Biocontrol - NAISMA: naisma.org/naisma-resources/biocontrol/

'Natural Enemies' is a basic ecological, trophic (food-web) term that implies:

One species utilizing another for nourishment/food.

The species may be an obligate ('host-specific' by necessity) or facultative (a 'generalist' utilizing the host as the opportunity presents but not relying on it) predator, parasite, herbivore, and/or disease.

A subset of biocontrol is 'classical biological control', defined as:

Reuniting a natural enemy (from an exotic pest's native range) within the invaded range.

iBiocontrol: www.ibiocontrol.org/whatIsBiocontrol.cfm

With those concepts in mind, please prepare a short answer to one of the following warm up questions:

1. How might you employ the power of nature to help control species that compete with humans for resources? Cite specific examples (or a personal experience) to support your overall philosophy that could be applied to most situations/environments/pests.
2. In your opinion, under what conditions would it be responsible to introduce an exotic species help control a pest species? What are the specific criteria you would look for in a potential 'biocontrol agent' that could justify it being released, even though it is not native?
3. In your opinion, what taxonomic group (e.g. Phylum, Class or Order) would be most likely to offer host-specific control and effective control of a pest species? Rank most fit (required), alternate (optional) and least fit (very optional), and share your thoughts on why you think so.
4. Name an example of an introduced/exotic pest control species (biocontrol agent) that went wrong. Briefly describe what happened and share your opinion on what mistakes were made in the selecting of this species and how this could be avoided in the future?
5. In 1880s California, natural enemies from Australia were introduced to save the citrus industry from control cottony cushion scale. The results were dramatically successful, leading to this type of biocontrol being coined as 'classical'. Can you find an example of an older use of a kind of biocontrol? Can you think of a better term for the introduction of exotic biocontrol agents than 'classical'?

Please write a short paragraph or prepare a 2 minute presentation of your findings; using discussion with classmates and consultation with outside sources as needed.