

## Re: limit of selection???

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**From:** Malcolm ([malcolm\\_at\\_55bank.freeserve.co.uk](mailto:malcolm_at_55bank.freeserve.co.uk))

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"A.C.H." <br.hessels@planet.nl> wrote

>

> *The following reason is, i believe, not in those lists:*

>

> *because an adaptation is caused by its selection pressure, it can not  
> escape its selection pressure.*

>

> *Again:*

> *The adaptation is linked to whatever selects it, it can not outperform  
> it.*

>

> *Again:*

> *an example: a prey will never be able to definitely outperform its  
> predator, because there is no selection beyond what's actually doing  
> the selecting (the predator).*

>

There is no point in having something that is more effective than needed.

For instance, most animals that are adapted to temperate climates are unlikely to go for more than a day or so without finding water. If they were transplanted to a desert then they would starve because of lack of food anyway, so elaborate systems for conserving water have not evolved.

There is also very frequently a cost associated with an improvement. For instance spiders could spin bigger webs and catch more flies, but they would need to produce more silk to do it. The actual web size is probably a very good compromise.

Then evolution is a dynamic process. For instance childbirth is very hazardous for human females, because head size has expanded faster than hip size. In several millions of years this will be solved, by selection for women with wider hips or for more premature births. However the adaptive process has not yet caught up.

>

> *This link between selection and adaptation is, i believe, a big part  
> of the reason why ecosystems don't fall apart, so it's important....*

>

I'm afraid this is just New Age nonsense. There is no inherent reason why ecosystems cannot fall apart because one organism becomes dominant and drives its prey to extinction. It happens all the time when new species are

sci.bio.evolution: Re: limit of selection???

introduced to islands, and it has almost certainly happened naturally in the past. At the end of the Permian period, for reasons unknown, about 90% of animal species became extinct. So ecological catastrophe is nothing new.