

The future of the sea turtles

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Have you ever dreamed about swimming with sea turtles? Since turtles are threatened today, it might not be possible in the near future. These animals have been around for millions of years but today they are threatened, and we are partly to be blamed. The human induced climate change that we are facing today has a negative impact on the sea turtles and their natural habitats. This can all change but we have to act now.

The role of sea turtles in ecosystems

There are seven different species of sea turtles in the world and they are all threatened by climate change. Sea turtles can be herbivores (main diet consists of sea grass and greens), carnivores (eating other animals) or both. This means that if they disappear, other animals and plants are at risk of disappearing too, since turtles regulate their population sizes. A negative effect on the ecosystems in the oceans can be a result of this.

Effects of climate change

The climate changes are increasing the temperature in the ocean and on beaches which affects the nesting areas of turtles. According to studies, nesting areas are declining in volume, and the rising temperatures, especially in the sand where the eggs are laid, is already making the sex ratio in the populations biased towards females. This means that in the future there may be no males left. The temperature also rises to lethal levels, which means that successful hatching is reduced or not happening at all.

Temperature-dependent sex determination

Sea turtles have a temperature dependent sex determination, which means that the temperature decides which sex the turtles will get. The likelihood of females getting born is higher when the temperature rises in the sand, which is where sea turtles lay their eggs. This means that the climate changes will change conditions, leading to an increase of female turtles and thus, less males. If the temperatures get high enough only females will be born, and in extreme cases no eggs will hatch because of too warm conditions.

All is not lost

Even if there is a lot of bad news for sea turtles, all is not lost. There are populations of sea turtles that are growing instead of declining due to conservation measures. Other measures have been taken to improve the declining numbers of sea turtles. For example, nets and gear for fishery has been changed, in a lot of areas, to prevent sea turtles from getting caught in them. A lot has already been done, but there are still more things that have to be done. A key to stop the reduction of the sea turtle populations is to look at the bigger picture and preserve more than just sea turtles. Regulating the greenhouse gases is also an important step towards helping to increase the sea turtle population.

More information

Would you like to know more? For more details and information on how the climate change, and direct human impacts are affecting sea turtles, read Frida Alexanderson's literature study "Klimatförändringars påverkan på havssköldpaddor". To get more information about what you can do to make a difference go to WWF's web page <http://www.wwf.se>.