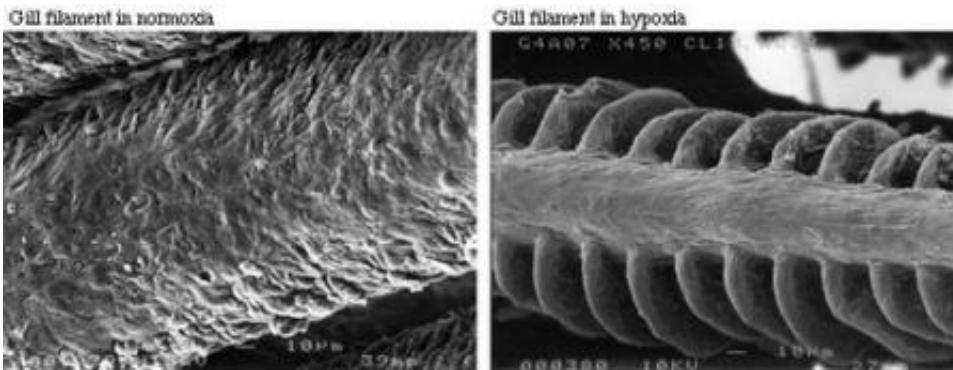


Don't hold your breath: Carp can manage without oxygen for months

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Electron microscope image showing gills before and after exposure to anoxic conditions (Supplied by G. Nilsson)

How long can you hold your breath? Scientists at the University of Oslo have recently discovered how the Crucian Carp, a close relative of the goldfish, is able to live for months without oxygen. The researchers hope that understanding how some animals cope with a lack of oxygen might give clues as to how to solve this problem in humans.

“Anoxia related diseases are the major causes of death in the industrialized world. We have here a situation where evolution has solved the problem of anoxic survival millions of years ago, something that medical science has struggled with for decades with limited success”, says Professor Göran Nilsson who will be presenting his latest results at the Annual Meeting for the Society for Experimental Biology

on Friday 7th April.

The researchers have found that this extraordinary fish can change the structure of its gills to avoid becoming anoxic. In addition its blood has a much higher affinity for oxygen than any other vertebrate, and it makes tranquilizers and produces alcohol when oxygen supplies are limited. These mechanisms allow the fish to survive for days or even months without oxygen depending on the temperature, whilst still maintaining physical activity.

Source: Society for Experimental Biology

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