

Study: How carp survive with little oxygen

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The common carp has given British scientists an unusual insight into how animals survive with little or no oxygen.

The University of Liverpool research team found the protein myoglobin -- thought to act as an oxygen store in the heart and muscle cells of humans and vertebrate animals -- also exists in many other tissues of the common carp, enabling it to survive in low-oxygenated environments.

Myoglobin is found in large quantities in diving mammals, such as whales and seals, and helps them stay submerged for long periods. Similarly in humans, myoglobin levels in the heart and some fatigue-resistant muscles increase when at high altitudes.

The scientists say their findings of myoglobin levels in the common carp could help scientists understand how humans could survive loss of oxygen supply to their tissues during a stroke or a heart attack.

The research is published in the Proceedings of the National Academy of Sciences.

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