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Energy Utilization

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Energy Utilization

Energy metabolism difference from that of an animals and birds by two aspects

Fish don't expend energy to maintain the body temperature different from that of their environment



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Energy expenditure in stressed fish

Fish exposed to stress have high oxygen consumption, carbon-di-oxide output and respiratory quotient.

Usually the ammonia quotient AQ. (Ratio of NH_3 to O_2 consumed) and Nitrogen quotient (Ratio of nitrogen excreted to oxygen consumed) increase indicating the increase involvement of protein metabolism.



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The glycogen level in muscles and liver of fish exposed to stress decreases but the blood shows increasing trend.

Suggesting the high utilization of glycogen both aerobically and anaerobically for deriving the energy to meet the demand.



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Also lactate in muscle and liver may increase.

The depletion of oxygen in muscle tissues of the stressed fish suggest the utilization of glycogen for deriving energy to cope up with the stress imposed.



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Energy budget for a hypothetical fish