Nelson J.A. and Chabot D. (2011) General Energy Metabolism. In: Farrell A.P., (ed.), Encyclopedia of Fish Physiology: From Genome to Environment, volume 3, pp. 1566–1572. San Diego: Academic Press.

General Energy Metabolism

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Glossary

Adenosine triphosphate (ATP) An almost universal carrier of chemical bond potential energy; fish use ATP made from catabolism of foodstuff or body reserve molecules to fuel energy-dependent processes.

Direct calorimetry The measurement of waste heat produced by metabolic processes to assess the rate of these processes.

thermodynamic property measuring the amount of disorder in the system. Greater disorder is energetically favorable; thus, entropy favors unfolding of proteins.

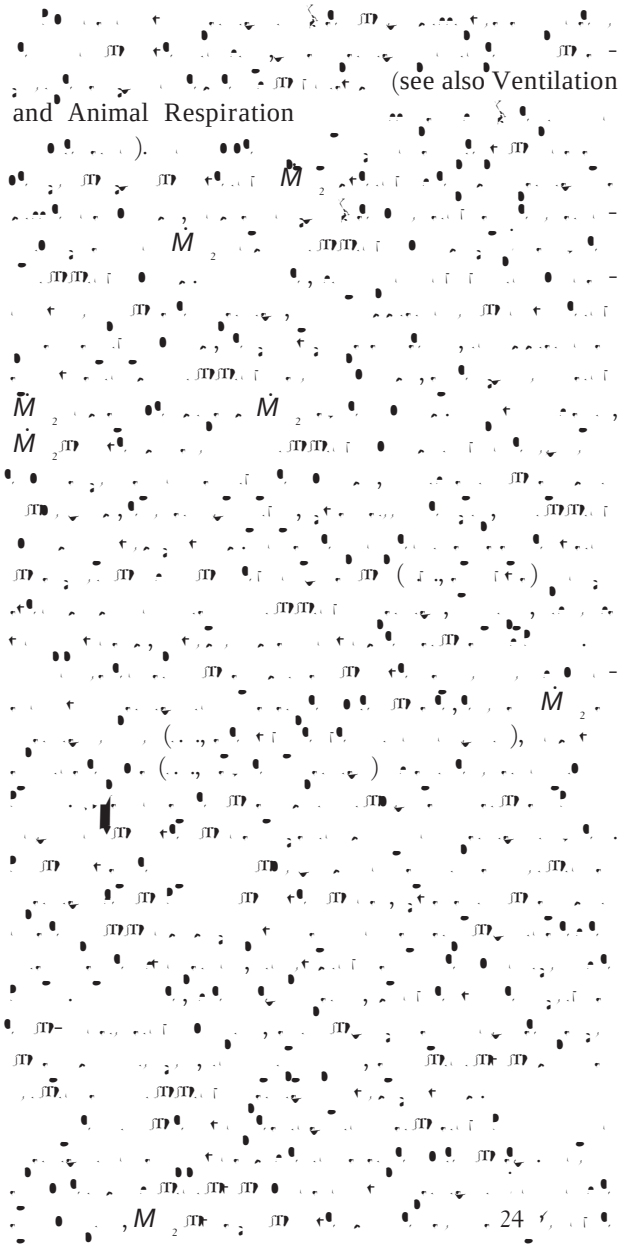
Indirect calorimetry The measurement of O_2 or

$\dot{M}_{O_2}$ Mass of oxygen consumed by an organism. The SI unit is micromoles or millimoles per unit time, but often expressed as milligrams of oxygen per unit time. It can also be divided by the mass of the fish (e.g., mg-O_2 h^{-1} kg^{-1}) in which case, it is called 'mass-specific oxygen consumption'.

Quantile A value that divides a data set into parts. Where the made parameter . If = 0.5, half the data are below the quantile and half above, which gives the median. If is given as a percent instead of a proportion, the quantile can be called a percentile.

Standard metabolic rate

(see also Gut Anatomy and Morphology).



(see also Ventilation and Animal Respiration).

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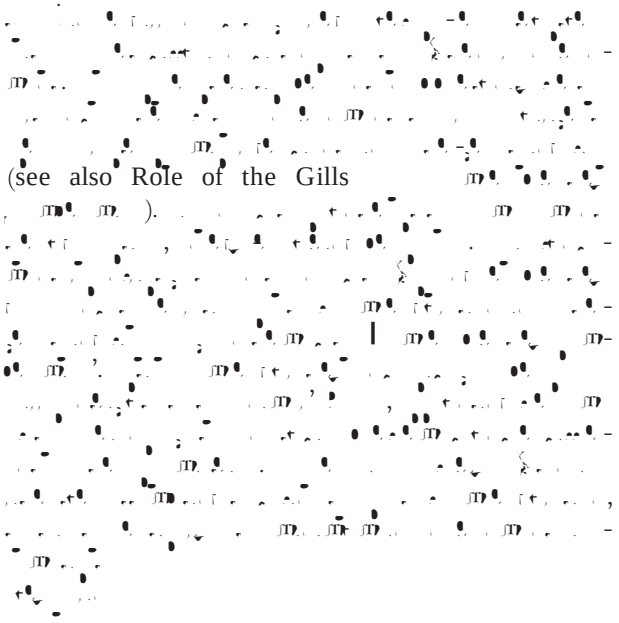
Oxygen consumption ($mg\text{-}O_2\ h^{-1}\ kg^{-1}$)

Oxygen consumption ($mg\text{-}O_2\ h^{-1}\ kg^{-1}$)

Atlantic cod



(see also Role of the Gills).