Data readme file:

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Data is SMR and MMR measurements taking using intermitted flow respirometry. Each row represents the calculated SMR and corresponding MMR for an individual measured overnight, for at least 12 hours. These have been corrected for background respiration.

The data file “Raw\_data” contains the following columns:  
“Species”: simply the species of the fish for the given measurement.

“Date”: Date in DD-MM-YYYY format for when the experiment was started, since the procedure was to run it overnight this represents the date of the evening/afternoon the experiment was started.

“Fish\_ID”: A unique ID assigned to each fish

“Mes\_nr”: The measurement number for a given fish

“Treatment”: If the fish was part of a treatment this is noted here. Brown trout, Cunner, Clownfish and Guppy were not part any treatments, so they are all noted as just control. For the Zebrafish and Chromis the treatments were feeding regimes, L=low, M=moderate and H=high, while for Rainbow trout it was various heat treatments during early life, 10Cegg=constant 10C throughout development, 14Cegg=14C during the egg stage and then 10C throughout the rest of its development and 14Cyolk=10C during the egg stage, then 14C during the yolk stage and back to 10C for the rest of its development.

“Weight”: The mass of the fish at the time of that given measurement in grams. The fish were padded dry with paper before this.

“SMR”: The standard metabolic rate calculated at that measurement. Calculated as the mean of the lowest 10% bacteria corrected measurements during the night, expressed in mg O2 h-1.

“MMR”: The maximum metabolic rate calculated at that measurement. Calculated before SMR by either chasing the fish to exhortation before measuring oxygen use in respirometer (used for Brown trout, Rainbow trout, Clownfish, Cunner and Chromis) or by swimming fish in a swim respirometer and directly measuring oxygen as the fish was swam to exhaustion (used for Guppy). No MMR measurements exist for Zebrafish as it was not part of its experimental protocol. Expressed in mg O2 h-1.

“AS”: Aerobic scope calculated as the MMR minus the SMR at the given measurement. Expressed in mg O2 h-1.

“Comment”: If any particular comment was attached to that measurement.

“Chambersize”: The volume of the chamber the fish was in, expressed in L.

“Temperature”: The temperature of the water during the SMR and MMR measurement.

“Sex”: Sex of the fish. Only recorded and noted for gyppies as these had clear and marked differences between genders.