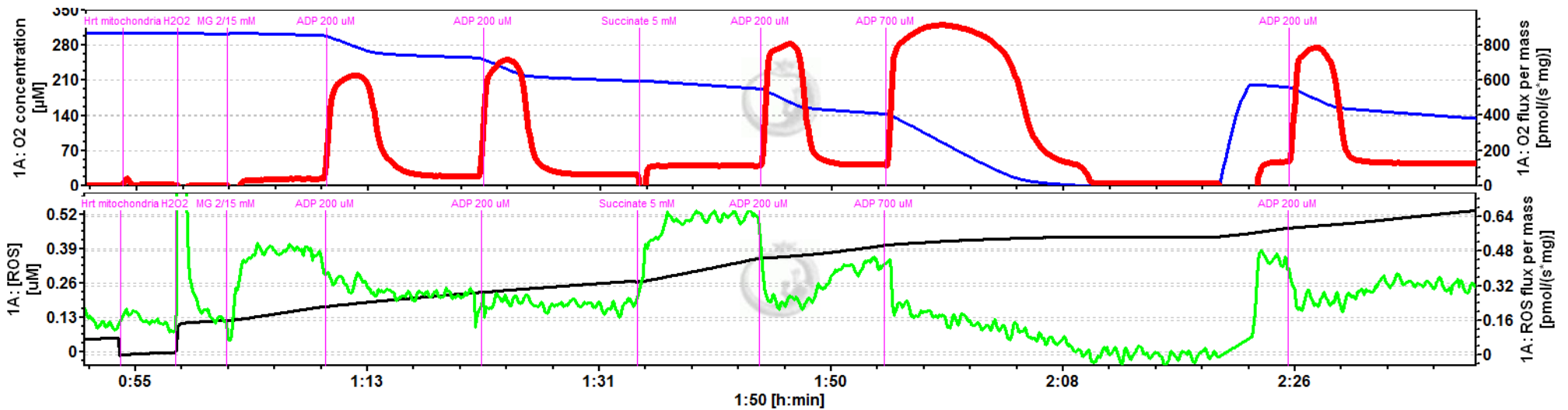
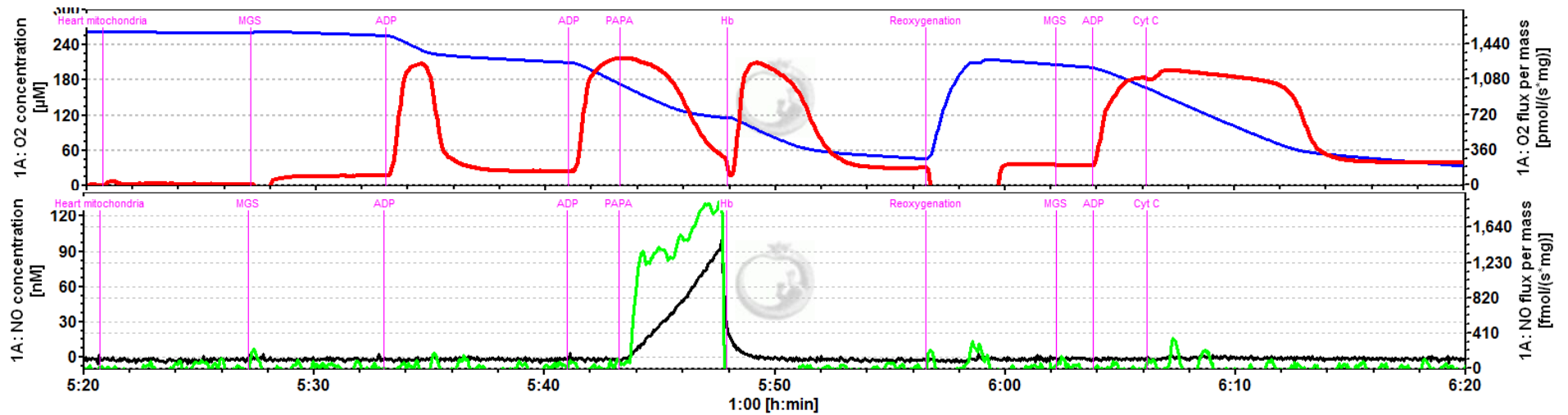


## Supplementary Figure 1



**Figure S1 - Representative recording made using cardiac mitochondria ( $0.25 \text{ mg mL}^{-1}$  chamber) from an Atlantic salmon acclimated at  $12^\circ\text{C}$  and tested at  $12^\circ\text{C}$ .** The figure shows the simultaneous measurement of O<sub>2</sub> consumption and ROS release rates during OXPHOS (State 3) and Leak (State 4) respiration in the presence of substrates for complex I alone (malate and glutamate) and complexes I and II (+ succinate) before, and after, a 10 min bout of anoxia. O<sub>2</sub> concentration (in  $\mu\text{mol L}^{-1}$ ) is represented by the blue line, O<sub>2</sub> flux [i.e., mitochondrial respiration rate (in  $\text{pmol O}_2 (\text{s}\cdot\text{mg})^{-1}$ )] by the red line, H<sub>2</sub>O<sub>2</sub> concentration (in  $\mu\text{mol L}^{-1}$ ) by the black line and H<sub>2</sub>O<sub>2</sub> flux [i.e., mitochondrial ROS release rates (in  $\text{pmol H}_2\text{O}_2 (\text{s}\cdot\text{mg})^{-1}$ )] by the green line. Events and concentrations of chemicals used are labeled on the recording.

## Supplementary Figure 2



**Figure S2 - Representative recording made using cardiac mitochondria ( $0.25 \text{ mg mL}^{-1}$ ) from Atlantic salmon acclimated at  $12^\circ \text{C}$  and tested at  $20^\circ \text{C}$ .** The figure shows the measurement of mitochondrial respiration during OXPHOS (State 3) in the presence of substrates of complexes I + II ( $2 \text{ mmol L}^{-1}$  malate,  $15 \text{ mmol L}^{-1}$  glutamate and  $5 \text{ mmol L}^{-1}$  succinate, MGS) and excess ADP ( $1 \text{ mmol L}^{-1}$ ); following the initiation of NO production (using the NO donor PAPANONOate); after haemoglobin (Hb) was added to the chamber to scavenge NO and re-establish OXPHOS respiration; and finally, after cytochrome C was added to examine mitochondrial integrity. This protocol was used to determine the sensitivity of mitochondrial respiration to NO (i.e., its  $\text{IC}_{50}$ ).  $\text{O}_2$  concentration (in  $\mu\text{mol L}^{-1}$ ) is represented by the blue line,  $\text{O}_2$  flux [i.e., mitochondrial respiration rate (in  $\text{pmol O}_2 (\text{s} \cdot \text{mg})^{-1}$ )] by the red line, NO concentration (in  $\mu\text{mol L}^{-1}$ ) by the black line and NO flux [in  $\text{fmol NO } (\text{s} \cdot \text{mg})^{-1}$ ] by the green line. Events are labeled on the recording.