

Comparative Study on the Rates of Respiration of a Native Saudi Arabian Fish *Aphanius dispar* (Ruppell, 1828) and an Introduced Competitor, *Gambusia affinis* (Baird and Girard, 1853) Under Laboratory Conditions

Hmoud F. Alkahem, Zubair Ahmed and Mohammed A. Arrasheed

Department of Zoology, College of Science, King Saud University,

P.O. Box 2455, Riyadh 11451, Saudi Arabia

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Abstract. Oxygen consumptions of *Aphanius dispar* and *Gambusia affinis* were measured under the laboratory conditions. The effect of body weight on the rate of oxygen consumption was estimated for both species. The native fish, *Aphanius dispar*, consumed less oxygen when compared with the exotic fish species, *Gambusia affinis*. When the results obtained were plotted on a double logarithmic grid, the oxygen consumption increased linearly with increased body weight meaning that the rate of oxygen consumption (*i.e.* the oxygen consumption per gm body weight) was higher in smaller fishes than larger specimens.