Avoidance of anoxic water by tadpoles of Rana temporaria

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HELFF & STUBBLEFIELD (1931) have shown that tadpoles of Rana pipiens cannot live in water with less than 18 - 22% saturation of dissolved oxygen. It is also known that lack of oxygen stimulates swimming in tadpoles, making them to move to better oxygenated water (SAVAGE, 1961). Although much information is available about the detection and avoidance of water of abnormally low oxygen content by fish (SHELFORD & ALLEE, 1913, 1914; COLLINS, 1952; JONES, 1952; WHITMORE et al., 1960; BISHAI, 1962) and by aquatic invertebrates such as Gammarus pulex (COSTA, 1966) little is known of how tadpoles respond when they encounter low oxygen tensions in their environment. The present work is an attempt to see how tadpoles react to water of different oxygen content.