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Phthalate alters the histological architecture of gonads of *clarias gariepinus* (Burchell, 1822)

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The presence of xenobiotics in various environments indicates a serious problem due to their persistent nature and varied toxic effects to the different organisms. Phthalates is a class of xenobiotic which has been reported as Endocrine-Disrupting Chemicals (EDCs) that include industrial compounds with a wide range of toxicological properties. Due to diverse use of phthalates and its leaching property, it eventually concentrates into the water bodies which lead to high health risk to inhabiting organisms. Therefore, the current study was intended to elucidate the effect of Benzyl Butyl Phthalate (BBP) on the gonads of African catfish, *Clarias gariepinus*.

The fishes were exposed to the BBP at low and high doses for 5 and 10 days. Noteworthy exposure dependent alterations were observed in the histological structure of gonads of both male and female. The ovaries showed severe disruption of the ovarian follicles, disintegrated nucleus, nucleolar vacuolization, disorganize nucleolar ring, fused and disintegrated oocytes. In the case of testes, it showed vacuolization in the seminiferous tubules, empty and disintegrated seminiferous tubules, degeneration of germ cells, and hypertrophy of Sertoli cells. Thus, such histological changes of the gonads due to BBP may harm the normal reproductive function in both male and female experimental organisms.

Biography

Lankesh Yashwant Bhaisare, currently working as Research Scholar in the Department of Zoology, IGNTU, Amarkantak India, was born in Gadchiroli, Maharashtra, India. He had completed his Bachelor of Science (Chemistry, Botany and Zoology)- 2016 from Government Institute of Science, Nagpur (R.T.M. Nagpur University), India and Master's in Zoology with Specialization Animal Physiology- 2018 from the Department of Zoology, R.T.M. Nagpur University Campus, Nagpur. He is also Alumni of Microbiology and Cell Biology Lab, Indian Institute of science, Bangalore

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