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# Assessment of the litter size, birth weight and serum sex hormonal profile of rats orally exposed to crude oil

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Litter size, tail length, birth weight, and serum sex hormonal profile of rats orally exposed to crude oil was assessed in this study. The results of this study showed a significant ($p<0.05$) decrease in litter size delivered by rats treated with crude oil (4.3±1.2), compared to the litter size delivered by rats in the control group (9.0±1.5). The mean tail length of the litters delivered by rats treated with crude oil, after one week of delivery (1.4±0.1cm), and sixth week of delivery (9.2±2.1cm), were not significantly ($p>0.05$) different from the mean tail length of the litters delivered by rats in the control group, after one week of delivery (1.8±0.2cm), and sixth week of delivery (9.2±1.8cm). Also, the mean total body weight of the litters delivered by rats treated with crude oil, after one week of delivery (4.7±1.1g) was insignificantly lower, compared to the mean total body weight of the litters delivered by rats in the control group (6.9±1.8g). However, the mean total body weight of the litters in the group treated with crude oil, after the sixth week of delivery (34.1±5.2g), was significantly ($p<0.05$) lower, compared to the litters from rats in the control group (61.3±8.5g). The percentage growth rate of the litters delivered by rats treated with crude oil, over six weeks of weaning (70.0±10.2%), was also significantly lower ($p<0.05$), compared to the percentage growth rate of the litters delivered by control rats, over six weeks of weaning (129.5±15.4%) The levels of serum FSH, LH, and progesterone also decreased significantly ($p<0.05$), from 5.4±1.8, 3.0±1.1 and 3.4±1.4 ng/ml in the control group to 1.9±0.4, 1.8±0.5and 1.8±0.3ng/ml in the treated group. Reproductive toxicity is hereby reported to be associated with oral exposure to crude oil.

## Biography

Saviour Ufot completed his BSc degree in Biochemistry at the age of 22 from University of Calabar, and MSc in Pharmacology at 24 years from University of Ibadan, all in Nigeria. He served as a Lecturer in University of Ilorin, Nigeria from 1993 to 1998. He is presently working on his PhD research work in Toxicology in Department of Biochemistry, University of Calabar, Nigeria. He is currently serving as Health, Safety and Environment Specialist with Total Exploration and Production Nigeria Limited. He has published over 12 papers in reputable journals and has attended many scientific seminars and conferences.

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