

BABALOLA, Olusegun Oluwaseun (Zoology)

Ecotoxicological and potential endocrine disrupting effects of selected herbicides on life stages and development of the aquatic African clawed frog, Xenopus laevis

Manmade chemicals in the environment have been linked to a global decline in amphibians and endocrine disrupting effects in wildlife and humans. Although herbicides are designed to eradicate unwanted plants, these chemicals may have developmental and health effects in non-target animals. In South Africa, high volume use of herbicides in agriculture and alien plant eradication programmes is a real concern. Six herbicide formulations were tested, using different life stages of the African clawed frog, *Xenopus laevis*. The selected formulations showed differential health effects, including teratogenicity, thyroid and growth disruption, gonadotoxicity and skewed sex ratios following metamorphosis. Evaluating herbicides for weed control should include endocrine modulation studies before considered safe for wildlife and humans.

Supervisor: Prof JH van Wyk