



Based at the University of the Free State, Qwaqwa campus, **Emile Bredenhand** is the main researcher within the new and upcoming Kokonyana research group. He is a numerical ecologist focusing on the use of insects as bioindicators. Currently he is involved in research in the field of conservation ecology in association with Golden Gate Highlands National Park and applied entomology with the Agricultural Research Unit (Small Grain Institute).

He completed all his degrees at the University of Stellenbosch; he completed a BSc degree, with main subjects in Entomology, Biodiversity & Ecology, Zoology and Botany. In the Agricultural faculty he completed a direct Masters under Prof Michael Samways researching the effect of the Kleinplaas Dam on the macroinvertebrate assemblages on the Eerste River, Jonkershoek. In this study he used insects as indicators of water quality (Bredenhand, 2005; Bredenhand & Samways, 2008).

Continuing within the conservation ecology and entomology department, he developed a biotope quality index for his PhD degree in Entomology. This index is a tool that can be used within conservation to determine the integrity of a biotope, thus providing an index value that can measure success on a time scale during restoration processes, or identifying perturbational stress/disturbances on a spatial scale (Bredenhand, 2013).

He has done some consultation work within the blueberry industry that lead to the development of a new sampling method used to monitor the banded fruit weevil, namely night time beating (Bredenhand *et al.*, 2009). Additionally, he also does research within teaching and learning with the University of the Free State scholars, with a focus on improving biology teaching. As lecturer he has won numerous prizes.

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E. Bredenhand. 2013. [Biotope Quality Index](#). *PhD Thesis*, University of Stellenbosch, RSA

E. Bredenhand, A. van Hoorn, T. Ferreira, F. May and S. Johnson. 2010. [Evaluation of techniques for monitoring Banded Fruit Weevil \(\*Phlyctinus callosus\*\) emergence in blueberries \(\*Vaccinium corymbosum\* L.\)](#). *African Entomology* 18(1):205-209

E. Bredenhand and M.J. Samways. 2009. [Impact of a dam on benthic macroinvertebrates in a small river in a biodiversity hotspot: Cape Floristic Region, South Africa](#). *Journal of Insect Conservation* 13(3)297-308

E. Bredenhand. 2005. [Evaluation of macroinvertebrates as bioindicator of water quality and the assessment of the impact of the Klein Plaas dam on the Eerste River](#). *MSc Thesis*, University of Stellenbosch, Stellenbosch, RSA