



2014 BHEARD Scholar  
**Raphael Filiberto  
Talamuk**

# Profile

<b>Country of Study:</b>	South Africa
<b>University:</b>	Stellenbosch University
<b>Department:</b>	Animal Sciences
<b>Student Position:</b>	Graduate Research Assistant — MSc
<b>Home Country:</b>	South Sudan
<b>Home Institution:</b>	University of Juba
<b>Home Position:</b>	Teaching Assistant
<b>Mentored By:</b>	S. AFRICA: Dr. Elsje Pieterse and Dr. Khalid Salie  S. SUDAN: Samir Yanni Mishrigi Department of Fisheries

## *Research Area: Aquaculture*

BHEARD PROGRAM START DATE: February 2012

HOMETOWN: Juba, South Sudan

UNDERGRADUATE EDUCATION: Aquaculture and Fisheries, University of Juba, SOUTH SUDAN

RESEARCH INTERESTS: Fisheries Technology

With the growing world population, Raphael says the demand for fish is increasing, but the supply is not keeping up. "With the limited supply and high prices of fishmeal, scientists are looking for alternative protein sources," says Raphael. The potential alternative? Insects. "Rearing insects is sustainable and cheap," says Raphael. Insects can grow on animal manure, food waste, and abattoir wastes. "My current research focuses on the use of black soldier fly larvae meal as an alternative protein source for fishmeal in African catfish diet." Raphael explains that fishmeal is the main protein source in aquafeed, obtained from fisheries which are either stagnant or declining. "The larvae of insects transform and reduce those wastes while at the same time produce high quality protein feedstuff," says Raphael.

PERSONAL STATEMENT:

Raphael says his short term goal is to pursue a Ph.D., exploring various alternative protein sources in fish diets as well as reducing pollution. "The knowledge and practical skills gained from this master's degree will enable me to carry out independent scientific research on aquaculture issues."

In South Sudan, Raphael plans to teach aquaculture modules and contribute to fish production through aquaculture. “Fish production in South Sudan is 100% artisanal. Although some subsistence fish ponds exist, aquaculture is not a common activity because of easily accessible ‘capture fisheries’ which is easier than digging a fish pond,” he says. Through the University of Juba, Raphael hopes to train rural communities to start fish farming in order to provide food security and improve their livelihoods.

In his spare time, Raphael enjoys watching soccer or movies, listening to music, reading and exploring the countryside with friends and family.