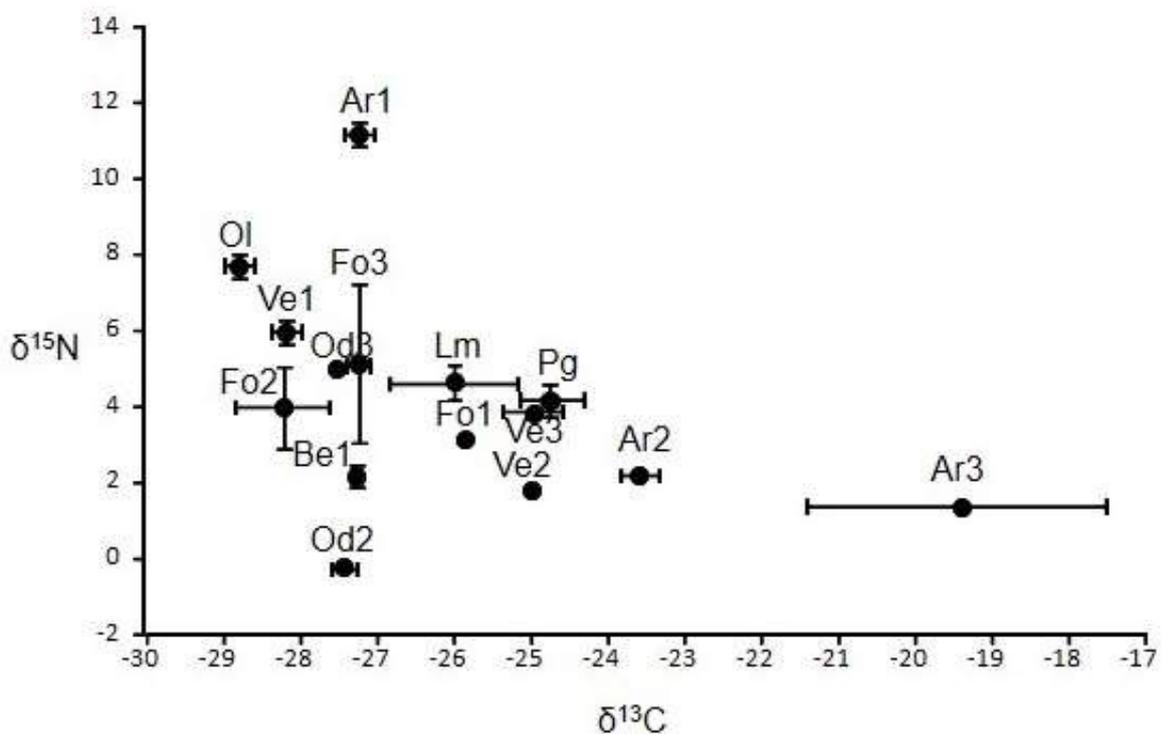


Project Update: April 2018

Utilising stable isotope analysis to provide data on trophic structure and source assimilation in sympatric stream anurans. Mean $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values from stable isotope analysis on sympatric stream anurans indicated that the frog *Occidozyga laevis* showed the most depleted $\delta^{13}\text{C}$ and most enriched $\delta^{15}\text{N}$ values as it assimilated mostly predatory species of spiders (Araneae). The two other species of anurans *Limnonectes magnus* and *Pulchrana grandocula*, showed comparable $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ mean values indicating very similar diets but SIAR Bayesian simulation showed a much broader diet of ants, dragonflies and wasps for *L. magnus* than *P. grandocula* which assimilated dragonflies mainly. This study has clearly delineated the three anurans as predators, but *O. laevis* is a specialist on spiders, while the other two species are insectivorous carnivore but appeared to show preferential insect groups (Odonata, Formicidae, and Vespidae) as prey.



Biplot of $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ stable isotope signatures of anurans *Limnonectes magnus* (Lm), *Pulchrana grandocula* (Pg), *Occidozyga laevis* (Ol) and potential prey sources (Formicidae-Fo, Odonata-Od, Araneae-Ar, Vespidae-Ve, Apidae-Be) in Taguibo River Watershed Forest Reserve, North-eastern Mindanao, Philippines. © Jeszianlenn L. Plaza