1125-Q5-1404 **Celil Ekici** and **Christopher Plyley*** (christopher.plyley@uvi.edu), RR01 Box 10,000, Kingshill, VI 00850, and **Cigdem Alagoz** and **Angie Estien**. *Math Circles for Integrated STEM Learning Communities.*

Aligning with the Vision 2025 for mathematical sciences and following the legacy of Felix Klein, these novel math circle activities bring together mathematics and science teachers, mathematicians, high school students, and undergraduate peer mentors to study the dynamics of an invasive lionfish population that is threatening the local ecosystem. We consider alternative harvesting regimes and study their mathematical and scientific models using both continuous and discrete data. This approach allow teachers to practice mathematical modeling for an integrated STEM learning using population growth as a theme. Exemplified math circle activities provide support for teachers and students looking to develop disciplinary connections between discrete mathematics, precalculus, and calculus, using discrete and continuous models which have an impact on the local ecology and fishing industry. (Received September 16, 2016)