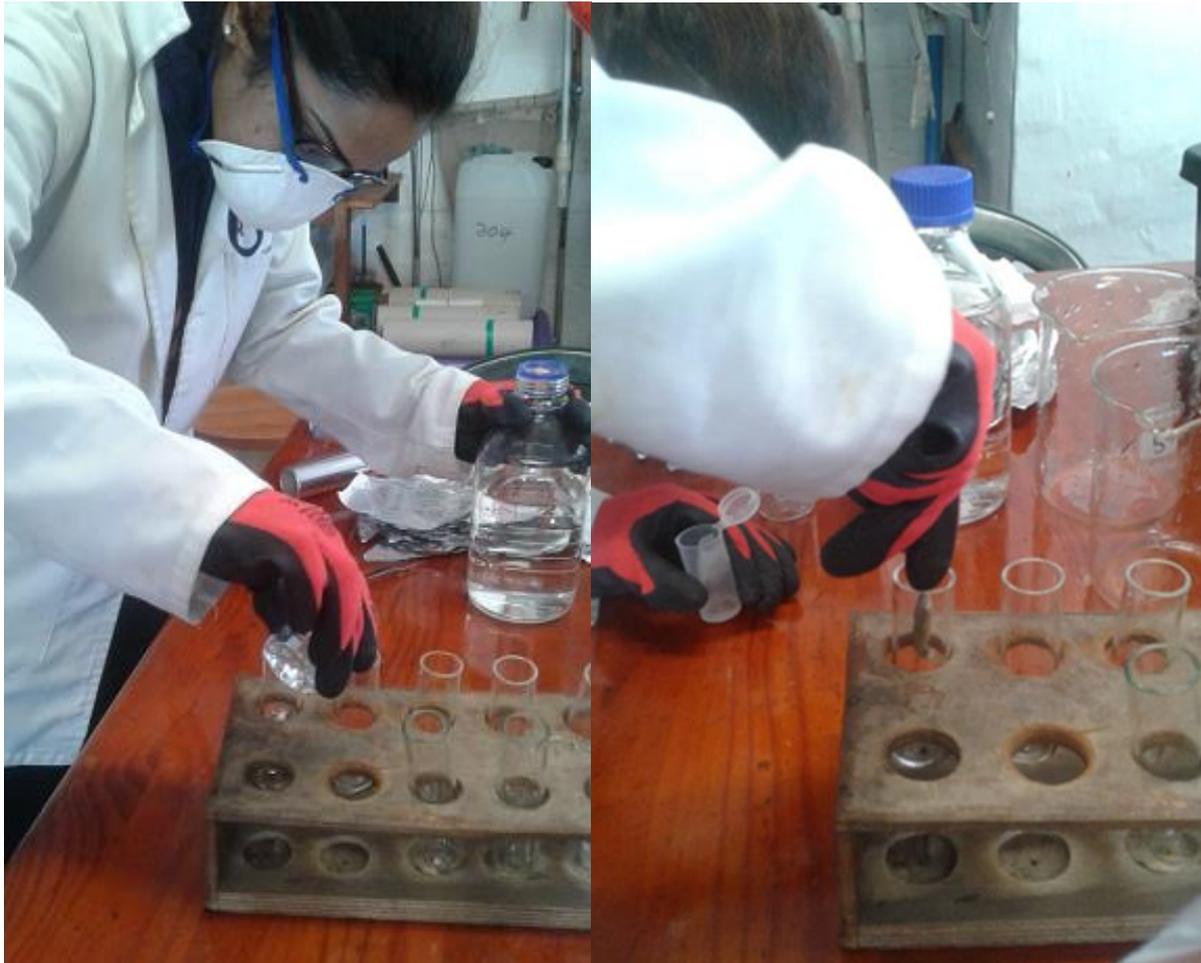


Project Update: April 2019

Duration March – April 2019

I have begun the extraction process of isolating microplastic particles from wild caught juvenile fish collected in the Knysna Estuary. A 10% alkaline solution (KOH – potassium hydroxide) is being used to digest the tissues of whole fish. This method was decided upon after conducting preliminary trials using 55% nitric acid, which was found to cause disintegration of plastic types such as nylon. This could potentially lead to severely under sampling the number of microplastic particles ingested by juvenile fish. Preparations for the pipefish experimental protocols have also begun.



Left: Alkaline digestion of fish tissues. Right: Inserting fish for digestion. © Nina de Villiers.



Juvenile fish submerged in 10 % KOH. © Nina de Villiers