

## **Sex Steroid Hormone in Recreational Beach: Case Study**

### **ABSTRACT**

Birth control pill is one of synthetic steroid hormones are believed to cause higher transgender case in the environment today, thus to affect more cancer risk to human populations. Beaches are the last extent for steroid hormones residue that can be reached by waste or surface water. The research is significant to develop a database and standard allowable limits for the non-traditional contaminants. Sex steroid hormones are known as endocrine disruptor compounds (EDC) a substance that can interrupt the reproductive system of human and normal hormonal signaling pathways that capable of affecting both the environment and human health even at a very low concentration. Hence, this research was focused on the determination of sex steroid hormone particularly on estradiol in Tanjung Aru Recreational Beach, Sabah. For this study, the steroid sex hormone was extracted using dispersive liquid-liquid micro extraction (DLLME-SFO) methodology with solidification of floating organic drop and injected into High-Performance Liquid Chromatography (HPLC) for detection. Based on the result obtained it is found that there were few detections of steroid sex hormone occurrences and this is alarming although in nanogram per milliliter in environment as it will bring and posed a life threat towards the living organism in the environment.