

Effects of PAHs pollutions on blood thyroidal hormones of *Liza klunzingeri* in the northern part of Hormoz strait

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This study was to work out the consequences of Polycyclic aromatic hydrocarbons (PAHs) on thyroid hormones of mullet *klunzingeri* to observe marine pollution from northern part of Hormoz strait (Persian Gulf) in Gregorian calendar month 2011. A complete of forty five people were collected from 3 estuaries (Shour-e-aval, Souro and Bustanoo) and determinant the PAHs and secretion parameters. Results showed highest total PAHs levels (22.38 ± 0.005 ng/g) were within the fish samples and therefore the lowest very cheap are obtained for water samples (10.30 ± 0.88 ng/g). Most of the PAH concentrations are Fluoranthene (F) in 3 stations. T3 and T4 were multiplied in most contaminated station than those of the less contaminated stations. There have been a correlation between T3 and T4 with PAHs results that T4 had important correlation ($P < 0.05$). Results shown mullet *klunzingeri* subjected of oil sources (Petrogenic) and fuel (Pyrogenic) of polycyclic aromatic compounds during this study space. Table one showed the statistics results of fish in numerous stations. The St three samples have minimum mean weight and length (11.7 ± 0.85 cm, 20.92 ± 4.25 g) continued with St 1 and St 2 a pair of. The results of PAHs mean concentrations in *L. klunzingeri*, water and sediment samples from numerous locations were shown in Table a pair of. supported these, St three had the very best total of PAHs concentration at $268.56 \mu\text{g/kg}$ in fish samples and the lowest of PAH concentration $133.995 \mu\text{g/kg}$ was discovered in St 1 (Table 2). For all tested samples, very cheap concentration of total PAHs were obtained from St one station water samples ($3.12 \mu\text{g/kg}$). T3 and thyroxine (T4) were multiplied within the most contaminated station (St three) over those of the less polluted station (St 1) however THS levels minimized in St 3. There was a correlation between T3 and T4 with PAHs results; T4 had a big positive correlation ($P < 0.05$; Table three, Fig. 2).

Discussion

One of the foremost vital factors that influence the physiology of stress is contamination. The results of this study showed that the buildup of PAHs within the fish were more than sediments and water (Table 2). The PAHs concentrations found within the sediment and fish at the St three were more than those of the opposite stations; so, it reveals that's a district requiring special concern to avoid future environmental problems. Because of their lipophilic nature, PAHs tend to accumulate a lot of in marine organisms than in different matrices, like sediment (Meador et al. 1995). It might even be derived from direct PAH inputs, such as shipping, oil spills, dry and wet atmospheric deposition, and air – water exchange. In our study space, industrial and vehicle atmospheric emissions, a good deal of sewage and waste water from town of Bandar Abbas and diesel

oil leakage/contamination from frequent load and fishing ships contributed to PAH inputs

Fishes have developed system systems because the efficient chemical center for coordinating the very important physical processes by that they maintain their physiological condition. As a result, neural structure pituitary elements of the thyroid axis establish its origin and direct the thyroid follicles to produce T4 and T3 as final product. These THs are currently well-known for plethora of physical actions, that unfold their effects to development, growth, and replica (Blanton and Specker 2007; Peter 2007). In this study, hormone levels (T3 and T4) were increased in contaminated locations.

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