



## **Occurrence of PPCPs in Pearl River Estuary and South China Sea**

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The development of a coastal megacity has put the South China Sea under human induced stress. Pharmaceuticals and personal care products (PPCPs) are ubiquitous contaminants and can be used as anthropogenic indicators for pollution of the marine environment. They enter the marine environment indirectly via waste water or directly due to recreational activities. PPCPs make up a group of different pharmaceuticals such as antibiotic, anti-inflammatories etc. and personal care products such as UV-filters. A mayor concern is the unknown fate and the effect these pollutants on the marine environment and especially its organisms. In some studies it was proven that some of these PPCPs have an endocrine disrupting and/or a subtle chronic effect on aquatic organisms. They are of concern for the health of the marine environment and may have an effect on human health. With our study we could determine the occurrence of PPCPs in the Pearl River estuary and the South China Sea. Salicylic acid (metabolite of acetylsalicylic acid) and octocrylene (UV-filter) were found in the open Sea in low ng/L concentration. Octocrylene is used in sunscreen and as a light stabilizer in paints and polymer-based products. It is of environmental concern because of its potential to be bioaccumulative. In addition to our findings in the open South China Sea, could we detect PPCPs, especially antibiotics, in higher ng/L-concentrations in the Pearl River Estuary.