

Emerging contaminants detected in aquaculture sites in Java, Indonesia

Publons ID	44264504
Wos ID	WOS:000635207100032
Doi	10.1016/j.scitotenv.2021.145057
Title	Emerging contaminants detected in aquaculture sites in Java, Indonesia
First Author	
Last Author	
Authors	Hidayati, NV; Syakti, AD; Asia, L; Lebarillier, S; Khabouchi, I; Widowati, I; Sabdono, A; Piram, A; Doumenq, P;
Publish Date	JUN 15 2021
Journal Name	SCIENCE OF THE TOTAL ENVIRONMENT
Citation	14
Abstract	<p>Pharmaceuticals of emerging concern (acetaminophen (ACM), trimethoprim (TMP), oxytetracycline (OTC), and sulfamethoxazole (SMX)) were detected in water samples from aquaculture environments and nonaquaculture sites in four regions located on the northern coast of Central Java. ACM was the most prevalent pharmaceutical, with a mean concentration ranging from not detected (n.d.) to 5.5 +/- 1.9 ngL(-1) (Brebes). Among the target antibiotics (TMP, OTC, SMX), OTC was the most ubiquitous, with a mean concentration varying from n.d. to 8.0 +/- 3.3 ngL-1. Correlation analysis demonstrated that there was a significant correlation between TMP and SMX concentrations. Based on ecological risk assessment evaluation, the use of OTC requires serious consideration, as it presented high health risks to algae, while ACM, TMP, and SMX posed an insignificant to moderate risk to algae, invertebrates, and fish. The findings obtained from this study highlight OTC as an emerging contaminant of prominent concern. More attention needs to be given to managing and planning for the sustainable management of shrimp farms, particularly in the northern part of Central Java. (C) 2021 Elsevier B.V. All rights reserved.</p>
Publish Type	Journal
Publish Year	2021
Page Begin	(not set)
Page End	(not set)
Issn	0048-9697
Eissn	1879-1026
Url	https://www.webofscience.com/wos/woscc/full-record/WOS:000635207100032
Author	Dr NUNING VITA HIDAYATI, M.Si