

Supplementary Table 1. Summary of meta-analyses results for regions. HAEDAT refers to events on the Harmful Algal Event Data base. Abbreviations for regions are as follows: ECA=East Coast America; CCA= Caribbean Central America; SAM= South America; WCA = West Coast America; ANZ= Australia New Zealand; SEA=Southeast Asia; NAS= North Asia; MED=.Mediterranean; EUR=Europe ; and PAC=Pacific/Oceania

Analysis	Regions										
	ECA	CCA	SAM	WCA	ANZ	SEA	NAS	MED	EUR	PAC	Global
Number of HAEDAT records	660	425	185	570	78	321	816	682	2842	366	7000
Number of HAEDAT grids	47	63	131	16	54	27	39	81	142	7	623
HAEDAT trend vs Years; see Fig.2B	r=0.530 n=14.083 t=2.173 p=0.047	r=0.911 n=4.313 t=3.361 p=0.025	r=0.164, n=34 t=0.941 p=0.353	r=0.437 n=19.728 t=2.045 p=0.054	r=0.266 n=34 t=1.561 p=0.128	r=0.547 n=10.633 t=1.920 p=0.082	r=-0.734 n=5.858 t=-2.126 p=0.079	r=0.469 n=7.286 t=1.221 p=0.260	r=0.641 n=8.544 t=2.135 p=0.063	nd	r=0.369, Z=2.970, p=0.003
Number of grids with HAEDAT events vs Years; see Fig. 2C	r=0.195 n=9.495 t=0.544 p=0.599	r=0.867 n=4.840 t=2.928 p=0.034	r=0.396 n=15.789 t=1.602 p=0.129	r=0.645 n=8.944 t=2.223 p=0.053	r=0.082 n=26.577 t=0.408 p=0.686	r=0.196 n=24.768 t=0.951 p=0.351	r=-0.317 n=19 t=-1.376 p=0.185	r=0.345 n=7.233 t=0.841 p=0.427	r=0.491 n=16.774 t=2.167 p=0.045	nd	r=0.265, Z=2.162, p=0.031
HAEDAT relative to OBIS data; see Fig.3C	r=0.088 n=29.156 t=0.460 p=0.649	r=0.765 n=5.939 t=2.357 p=0.057	r=0.622 n=7.797 t=1.914 p=0.093	r=-0.413 n=13.322 t=-1.524 p=0.151	r=-0.423 n=13.574 t=-1.590 p=0.135	r=0.011 n=23.675 t=0.049 p=0.961	r=0.646 n=13.918 t=2.918 p=0.011	r=0.320 n=10.723 t=0.997 p=0.341	r=0.251 n=17.801 t=1.031 p=0.316	nd	r=0.350 Z=1.330 p=0.183

Supplementary Table 2. Summary of meta-analyses results for combined regions for aquaculture analysis. Abbreviations as in Supplementary Table 1

Analysis	Regions					Global
	ECA & WCA	SAM & CCA	ANZ	SEA	EUR	
Number of HAEDAT records vs Aquaculture; see Fig. 4B	r=0.550 n=14.149 t=2.293 p=0.038	r=0.870 n=4.923 t=3.019 p=0.030	r=0.244 n=33.157 t=1.407 p=0.169	r=0.510 n=11.008 t=1.779 p=0.103	r=0.524 n=11.014 t=1.847 p=0.092	r=0.425 Z=3.591 p=0.0003