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| Stressor | Relevance | Mechanism | Literature | Findings | Study Conc. | Solvent Used | Field Conc./Applications |
| Chloramphenicol | Common and long-used antibiotic (bacteriostatic) | Inhibits protein chain elongation via peptidyl transferase | (Backhaus and Grimme, 1999; Kümmerer, 2009) | Toxic to *V. fischeri* over chronic (24h) exposures | EC90 – 0.129 mg.l-1  EC50 – 0.064 mg.l-1  EC90 – 0.019 mg.l-1 | Stock solution? | Up to 60 ng.l-1 in surface water |
| Arsenic | Major anthropogenic stressor, metalloid | Oxidative stress | (Takeuchi *et al.*, 2007)  (Smedley and Kinniburgh, 2002) | EC50 of 9 strains varied from 20-730 mg.l-1 | 0, 5, 50, 250 mg.l-1  (+500 and 750 for one strain) | dH2O | <0.1 μg.l-1 (Sunningdale Tap Water) |
| Amoxycillin | Common antibiotic | Beta-lactam inhibition? | (Costanzo, Murby and Bates, 2005) | No evidence of resistance in sewerage or stream bacteria | Significant drop in mean denitrification rates (33%) by bacteria @ 1mg.l-1 |  | 49% recovery from water (?)  High output into environment, but a t90 of <2 days |
| Imidacloprid | Significant neonic (although now banned) | ACh inhibition | (Tišler *et al.*, 2009) | IC50 for *V. fischeri* over 30 min was 61.9 mg.l-1 | IC20 – 11.9 mg.l-1  IC50 – 61.9 mg.l-1  IC80 – 320 mg.l-1 | dH2O | Severely restricted in EU since 2013  1 ug.l-1 is a ‘field realistic dose’ |
| Sodium | Minor anthropogenic pollutant – but irreplaceable? | Osmotic stress | (Xie *et al.*, 2017) | Na concentration had a more significant effect (13%) than any other stressor/factor | Chronic across riverine/tidal gradients | Observational study | 40.3 mg.l-1 (Sunningdale Tap Water) |
| DCD (Nitrification Inhibitor) | Used widely to reduce nitrogen loss from farmland, but can affect freshwater | Inhibits uptake of ammonium | (Salis *et al.*, 2017) | Disadvantages ammonium-oxidising bacteria, doesn’t affect others | 0.38± 0.06 mg.l−1 | Running water | Study concentration was ‘similar to those found in 1st-order streams in an NZ dairy farm.’ |
| Glyphosate | Most commonly used herbicide in the US | Interferes with amino acid synthesis | (Sihtmäe *et al.*, 2013; Van Bruggen *et al.*, 2018) | Inhibition of luminescence in *V. fischeri* in 30 minutes | EC50 – 7.6 mg.l-1  More toxic without adjuvants for *fischeri* | MilliQ H2O | <0.03 μg.l-1 (Sunningdale Tap Water) |
| Atrazine | Second most commonly used herbicide | Photosystem inhibition, endocrine disruptor? | (Palma *et al.*, 2008) | Inhibition of luminescence in *V. fischeri* in 30 minutes | EC50 – 69.4 mg.l-1  Another source: 39.9 mg.l-1 | Synthetic freshwater | <0.005 μg L−1 (Sunningdale Tap Water) |
| Cadmium | Major anthropogenic pollutant | Oxidative stress | (Mighanetara *et al.*, 2009; Wang *et al.*, 2009) | Inhibition of luminescence in *V. fischeri* in 60 minutes | EC50 - 9.96 mg.l-1@ 30 minutes | 2% saline | <0.20 μg.l-1 (Sunningdale Tap Water) |
| PHQ | A highly toxic phototransformed PAH | Conversion into electrophilic metabolites? | (Wang *et al.*, 2009) | Inhibition of luminescence in *V. fischeri* in 60 minutes | EC50 - 65.49 ug.l-1@ 30 minutes | 2% saline | Main source of human exposure is cigarette smoke (?) |
| Copper | Major anthropogenic pollutant, and essential nutrient | Oxidative stress | (Mighanetara *et al.*, 2009; Wang *et al.*, 2009) | Inhibition of luminescence in *V. fischeri* in 60 minutes | EC50 - 146.88 ug.l-1@ 30 minutes | 2% saline | <0.010 mg.l-1 (Sunningdale Tap Water) |
| Metaldehyde | Most common molluscicide, main cause of PCVs in UK | Inhibits metabolism/ damages CNS in molluscs, humans | (Thomas *et al.*, 2017)  The only paper on bacteria and metaldehyde out there! | Metaldehyde is not normally broken down by water processing or aquatic bacteria  But Acinetobacter E1 (soil) can use it as a food source! | 0-1000 μM  (not that it’s directly comparable) | Mineral medium | 0.018 μg.l-1(Sunningdale Tap Water)  Present at 3-8% in commercial formulations, adjuvants unknown |
| Benzene | PAH petrol additive, used as stock in many synthesis pipelines | Mutagenesis | (Hartnik *et al.*, 2007; Haritash and Kaushik, 2009) | Inhibition of luminescence in *V. fischeri* in 15 minutes  Many aquatic bacteria are known to degrade benzene | EC50 102.78 mg.l-1 | DMSO | 0.02 μg.l-1 (Sunningdale Tap Water) |
| Iron |  |  |  |  |  |  | <15.0 μg.l-1 (Sunningdale Tap Water)  Included as Silwood water is iron-rich |