

**Appendix S2.** The list of species excluded from our analyses because of their rarity, by removal from the whole dataset or from a particular stream group; a - occurrence restricted to one stream in a whole dataset; b - only one value within a dataset; c - occurrence restricted to one stream within a particular stream group

<b>species excluded</b>	<b>dataset</b>	<b>reason</b>
<i>Achnanthes stolidia</i>	whole	a
<i>Pinnularia ignobilis</i>	whole	a
<i>Navicula cryptotenella</i>	whole	a
<i>Frustulia vulgaris</i>	whole	a
<i>Navicula tripunctata</i>	whole	a
<i>Achnanthes minutissima</i>	whole	b
<i>Achnanthes grana</i>	whole	b
<i>Caloneis lauta</i>	stream group 1	c
<i>Epithemia turgida</i>	stream group 1	c
<i>Fragilaria construens</i>	stream group 1	c
<i>Gomphonema clevei</i>	stream group 1	c
<i>Melosira varians</i>	stream group 1	c
<i>Navicula placentula</i>	stream group 1	c
<i>Nitzschia dissipata</i>	stream group 1	c
<i>Nitzschia fonticola</i>	stream group 1	c
<i>Nitzschia palea</i>	stream group 1	c
<i>Nitzschia paleacea</i>	stream group 1	c
<i>Rhopalodia gibba</i>	stream group 1	c

<i>Amphora inariensis</i>	stream group 2	c
<i>Amphora pediculus</i>	stream group 2	c
<i>Cocconeis pediculus</i>	stream group 2	c
<i>Cymbella sinuata</i>	stream group 2	c
<i>Epithemia sorex</i>	stream group 2	c
<i>Fragilaria arcus</i>	stream group 2	c
<i>Fragilaria construens</i>	stream group 2	c
<i>Gomphonema clavatum</i>	stream group 2	c
<i>Gomphonema clevei</i>	stream group 2	c
<i>Navicula atomus</i>	stream group 2	c
<i>Nitzschia fonticola</i>	stream group 2	c
<i>Nitzschia inconspicua</i>	stream group 2	c
<i>Rhoicosphenia abbreviata</i>	stream group 2	c
<i>Caloneis lauta</i>	stream group 3	c
<i>Cymbella sinuata</i>	stream group 3	c
<i>Diatoma mesodon</i>	stream group 3	c
<i>Fragilaria arcus</i>	stream group 3	c
<i>Fragilaria pinnata</i>	stream group 3	c
<i>Gomphonema clavatum</i>	stream group 3	c
<i>Meridion circulare</i>	stream group 3	c
<i>Navicula placentula</i>	stream group 3	c