



Supplement of

Interannual variability of the initiation of the phytoplankton growing period in two French coastal ecosystems

Coline Poppeschi et al.

Correspondence to: Coline Poppeschi (coline.poppeschi@ifremer.fr)

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Supplement

(a)

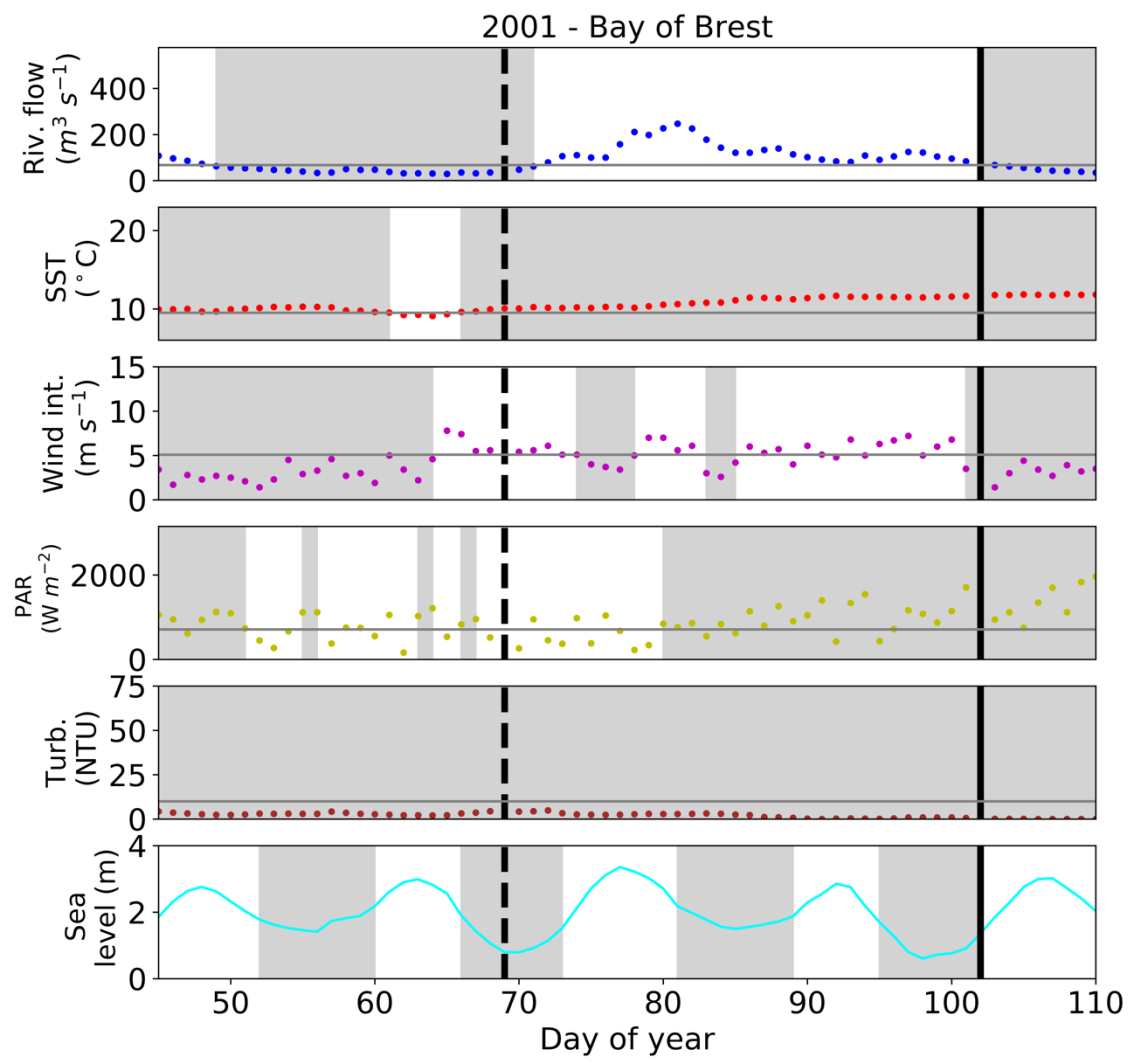
<i>Years</i>	<i>SST</i> (°C)	<i>PAR</i> ($W m^{-2}$)	<i>Wind intensity</i> ($m s^{-1}$)	<i>Turbidity</i> (<i>NTU</i>)	<i>River Flow</i> ($m^3 s^{-1}$)
2001	11.7	1187	4.7	0.3	71.9
2002	10.3	708	5.1	4.3	35.8
2003	10.9	1573	3.4	4.7	14.5
2004	9.3	1097	4.8	2.3	31.4
2007	10.8	937	4.7	34.4	90.9
2010	8.2	682	4.8	5.5	102.3
2011	9.4	985	4.6	3.6	38.4
2012	11.4	1310	3.7	4.6	13.7
2013	9.0	689	4.5	6.0	60.7
2014	10.0	934	5.2	15.4	95.1
2015	10.0	816	5.1	8	68.9
2016	10.1	816	5.1	9.4	93.3
2017	11.8	1615	4.4	10.3	16.8
2019	13.8	1605	3.9	8.2	25.9

(b)

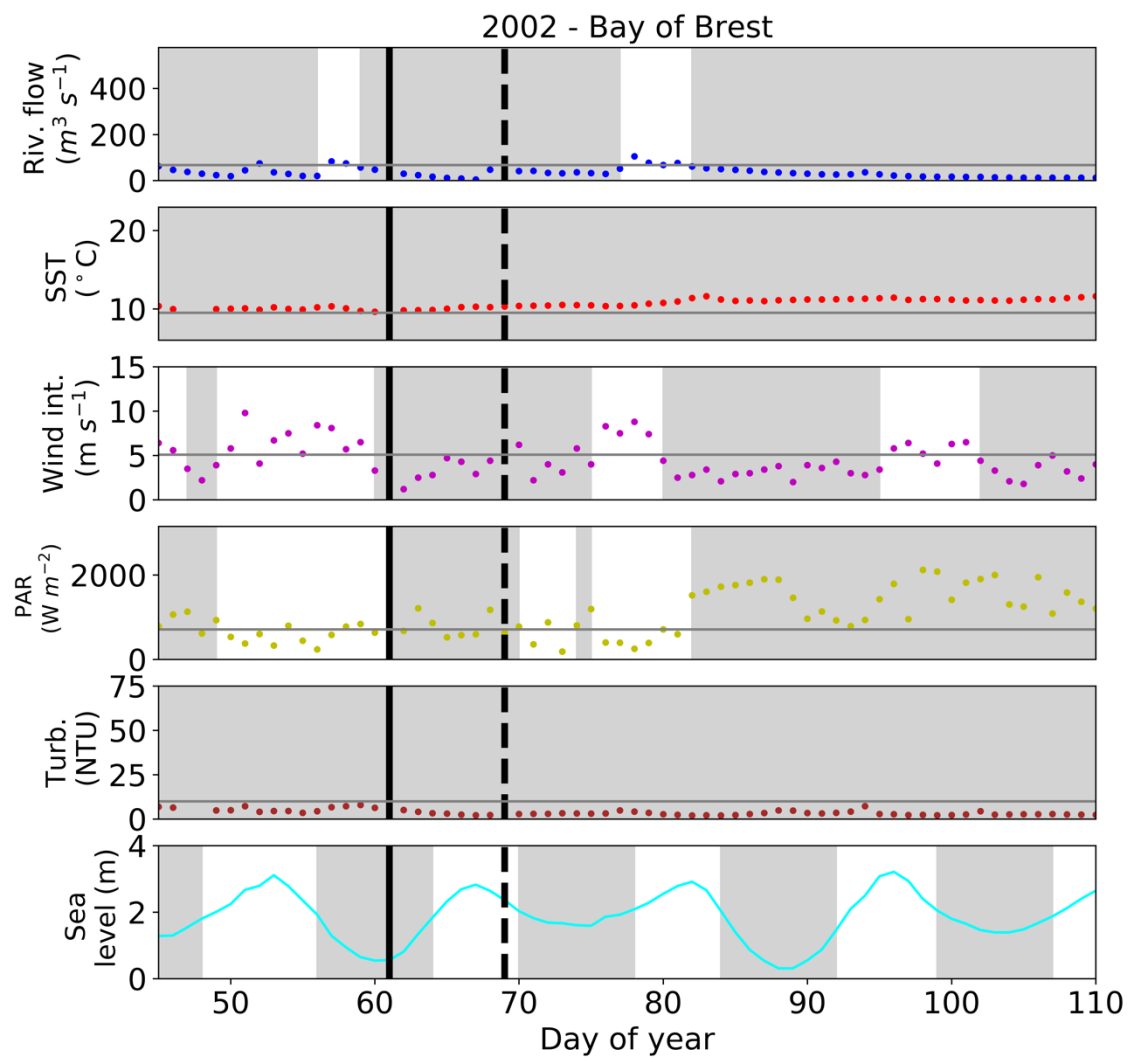
<i>Years</i>	<i>SST</i>	<i>PAR</i>	<i>Wind intensity</i>	<i>Turbidity</i>	<i>Riv. F. V.</i>	<i>Riv. F. L</i>
	<i>(°C)</i>	<i>(W m⁻²)</i>	<i>(m s⁻¹)</i>	<i>(NTU)</i>	<i>(m³ s⁻¹)</i>	<i>(m³ s⁻¹)</i>
<i>2011</i>	<i>9.2</i>	<i>1009</i>	<i>3.4</i>	<i>8.3</i>	<i>97.7</i>	<i>676.7</i>
<i>2012</i>	<i>9.6</i>	<i>830</i>	<i>2.2</i>	<i>19.2</i>	<i>40.8</i>	<i>613.0</i>
<i>2013</i>	<i>8.6</i>	<i>884</i>	<i>3.7</i>	<i>13.2</i>	<i>188.0</i>	<i>1519.8</i>
<i>2014</i>	<i>10.8</i>	<i>1212</i>	<i>3.0</i>	<i>7.6</i>	<i>207.6</i>	<i>1509.5</i>
<i>2015</i>	<i>10.3</i>	<i>905</i>	<i>3.3</i>	<i>9.8</i>	<i>158.8</i>	<i>1421.1</i>
<i>2016</i>	<i>9.6</i>	<i>1082</i>	<i>3.9</i>	<i>11.1</i>	<i>169.6</i>	<i>1656.1</i>
<i>2017</i>	<i>11.4</i>	<i>1482</i>	<i>3.3</i>	<i>6.9</i>	<i>38.7</i>	<i>955.7</i>
<i>2018</i>	<i>8.9</i>	<i>929</i>	<i>3.9</i>	<i>16.4</i>	<i>177.6</i>	<i>1589.0</i>
<i>2019</i>	<i>11.4</i>	<i>1522</i>	<i>2.8</i>	<i>8.7</i>	<i>48.3</i>	<i>525.5</i>

Table S1: Medians of the main environmental parameters over the 15 days preceding the IPGP and the 15 days after the IPGP in the (a) Bay of Brest and (b) Bay of Vilaine.

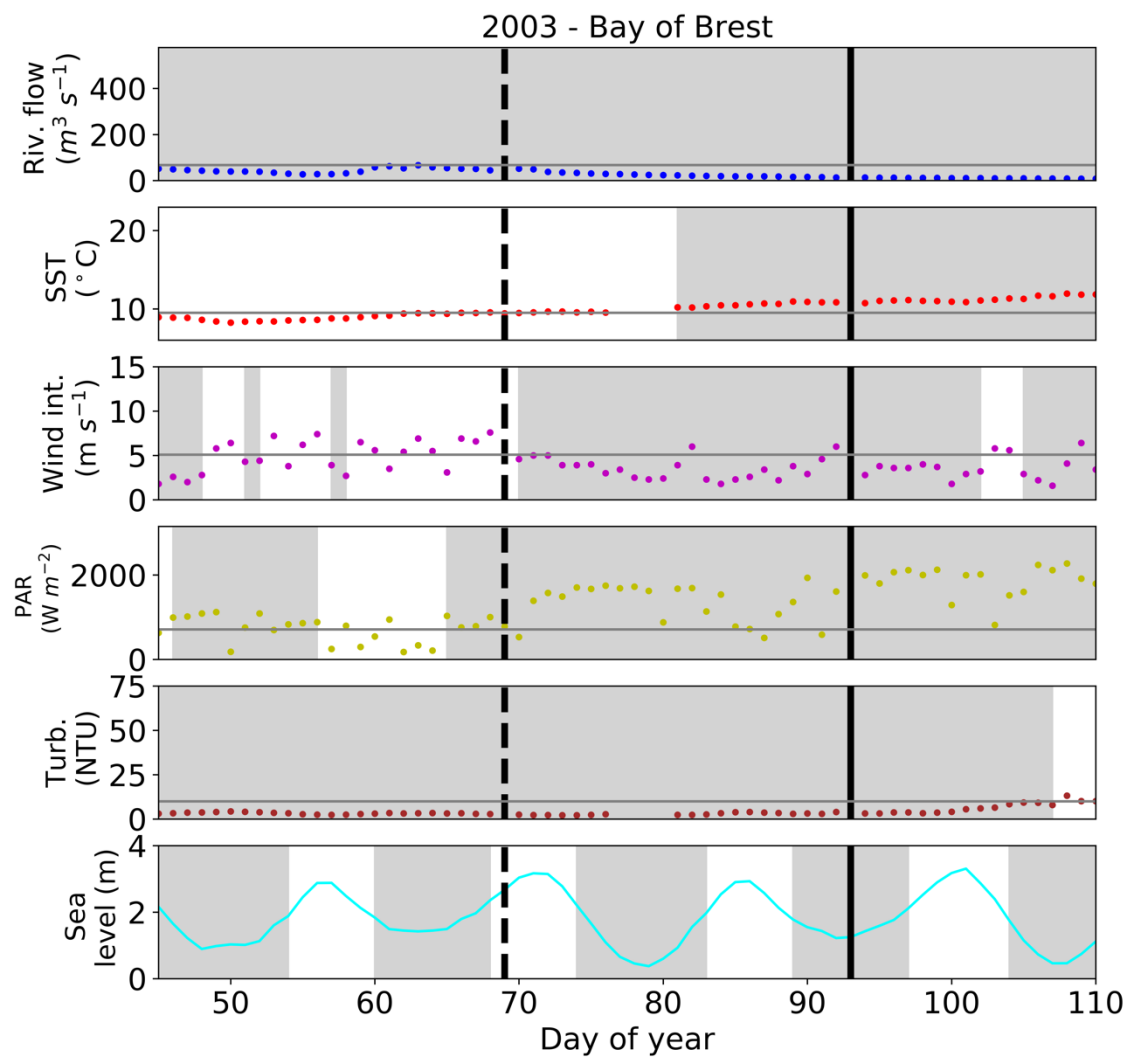
(a)



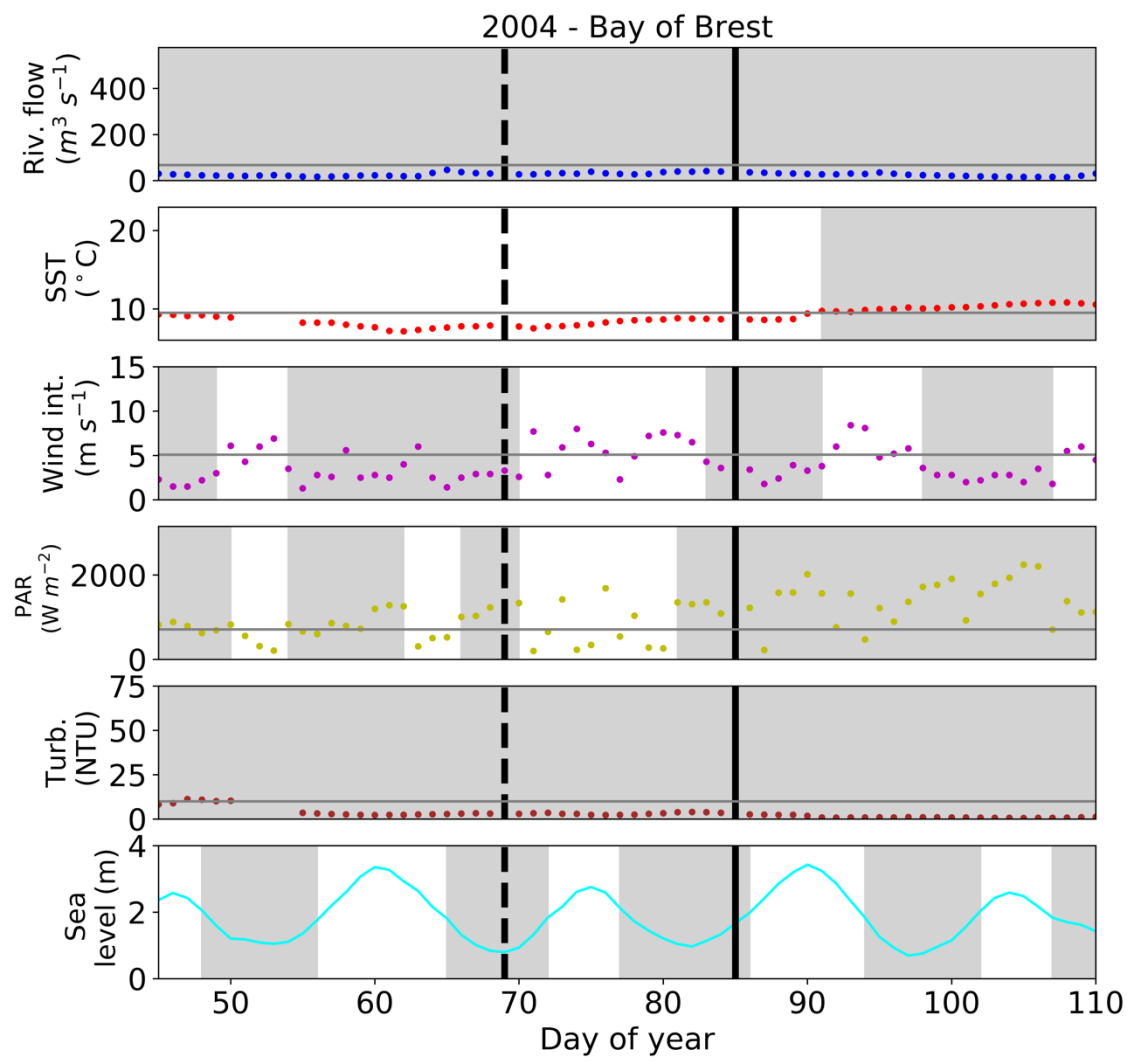
(b)



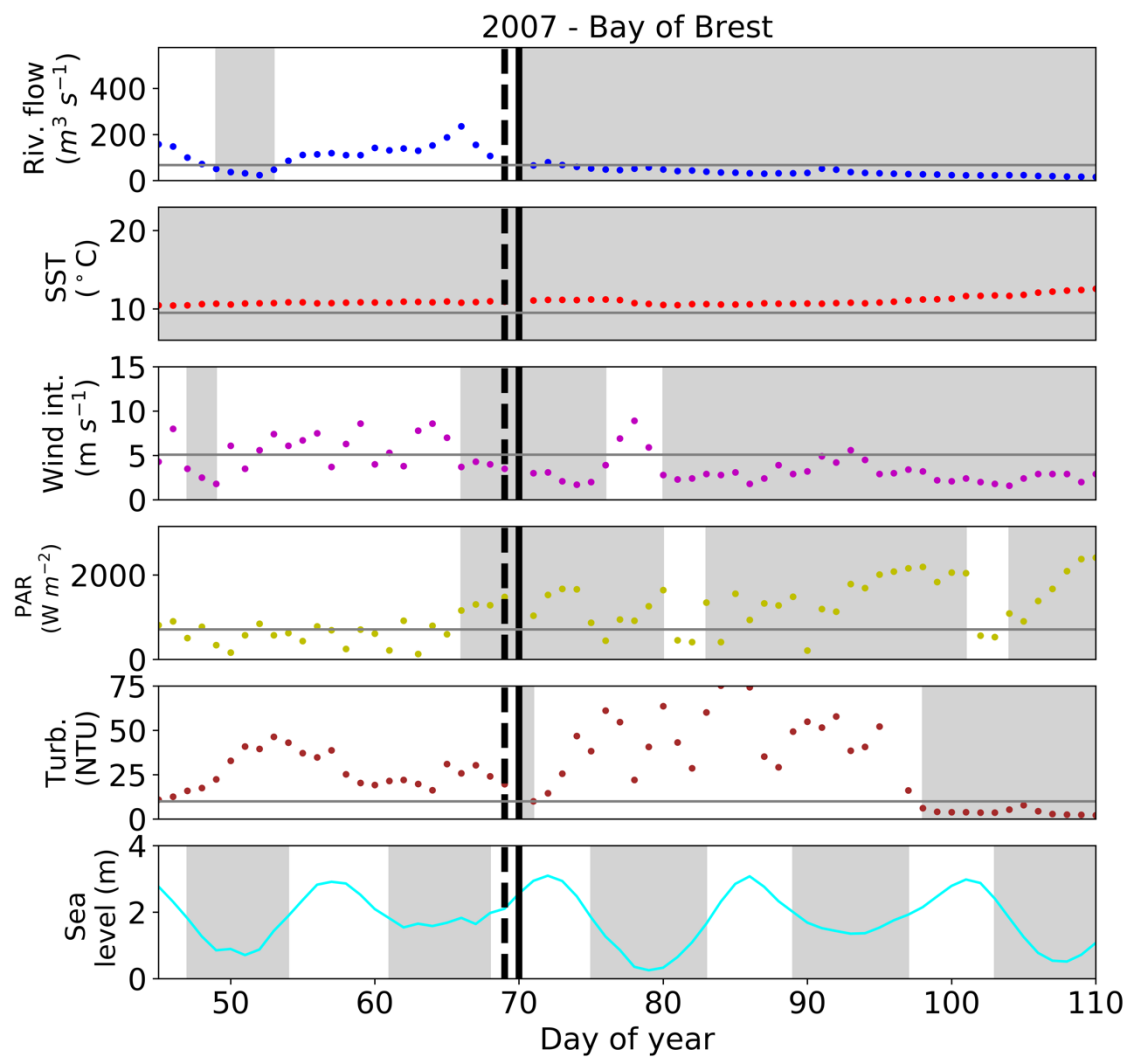
(c)



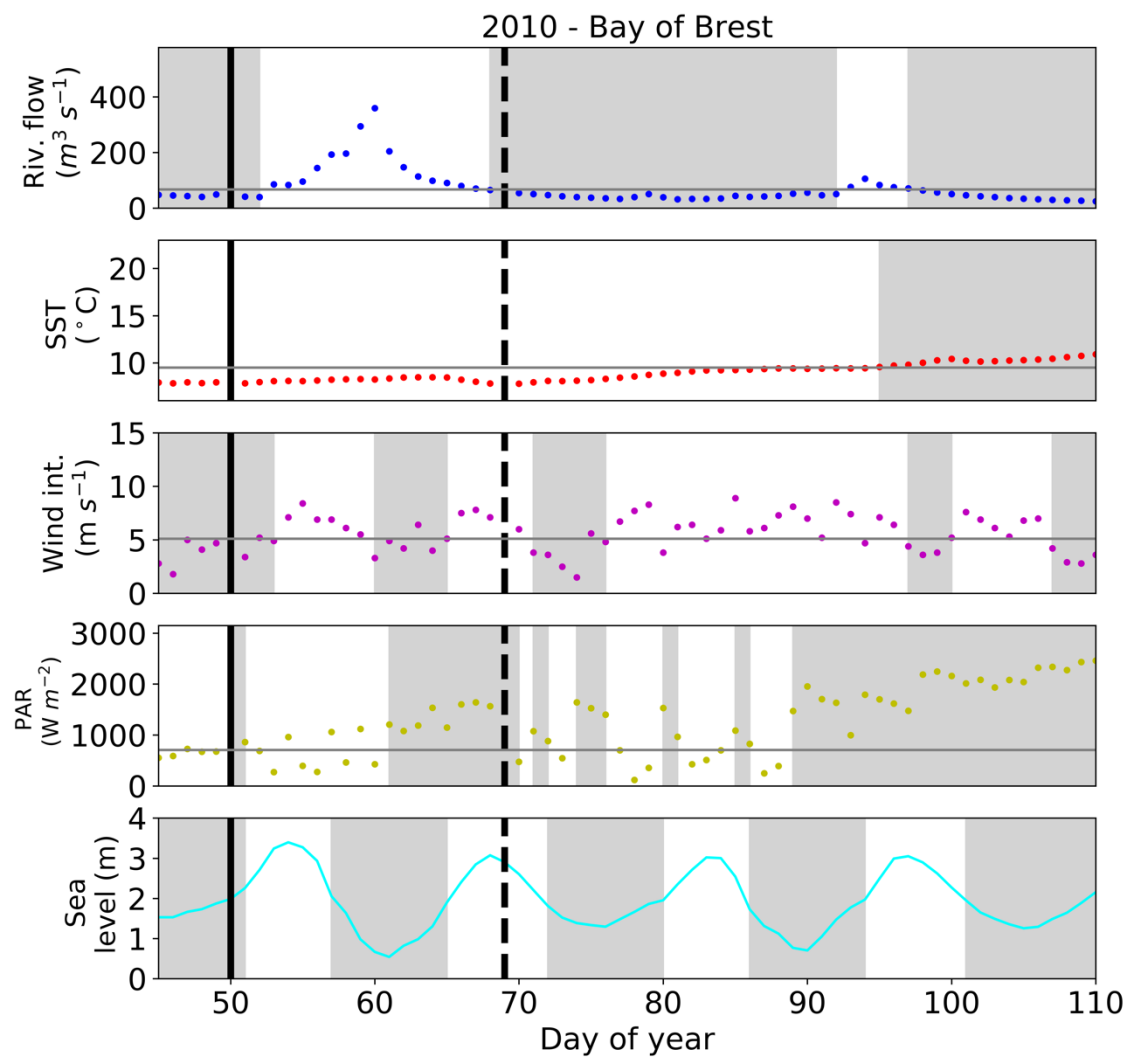
(d)



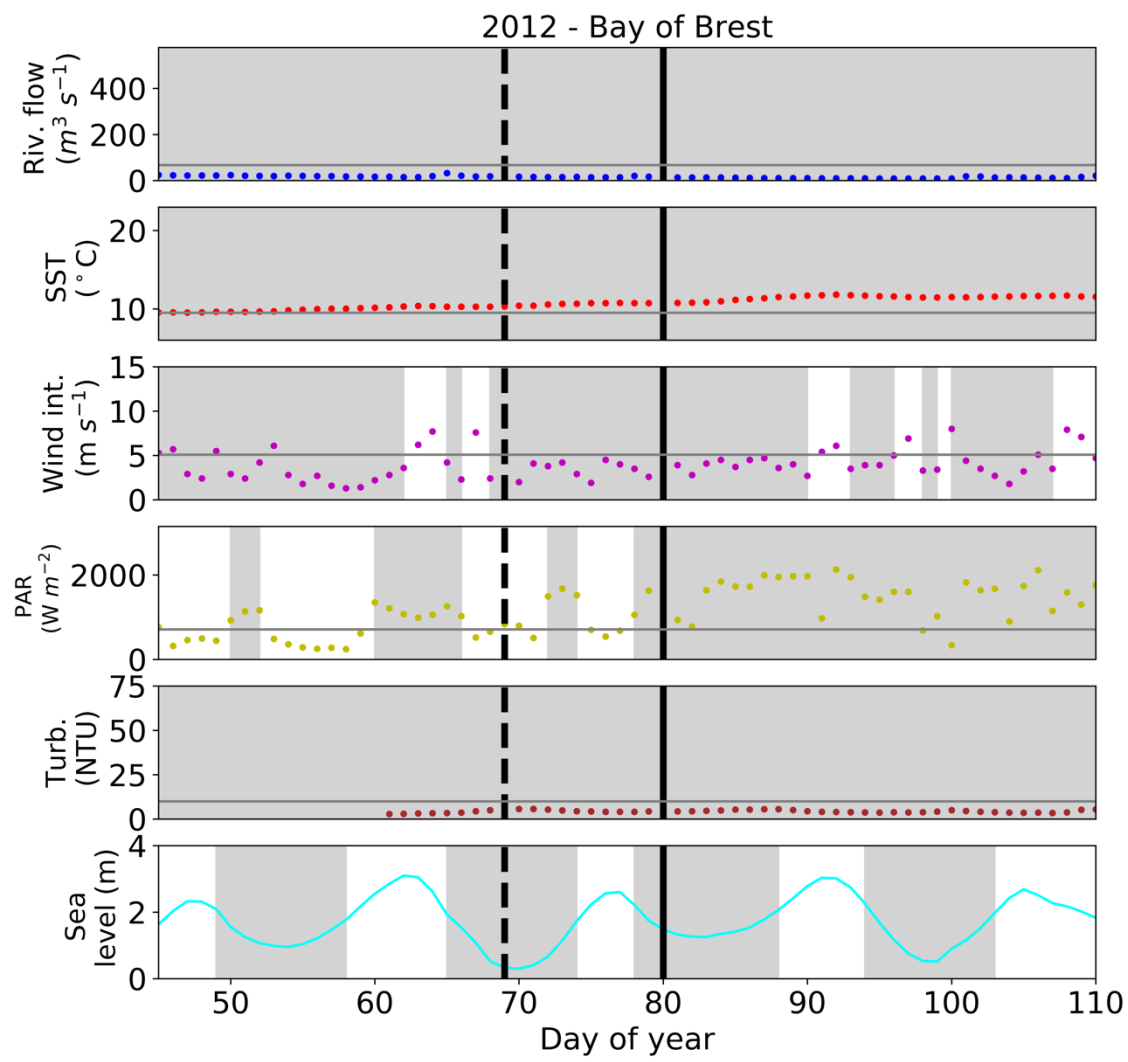
(e)



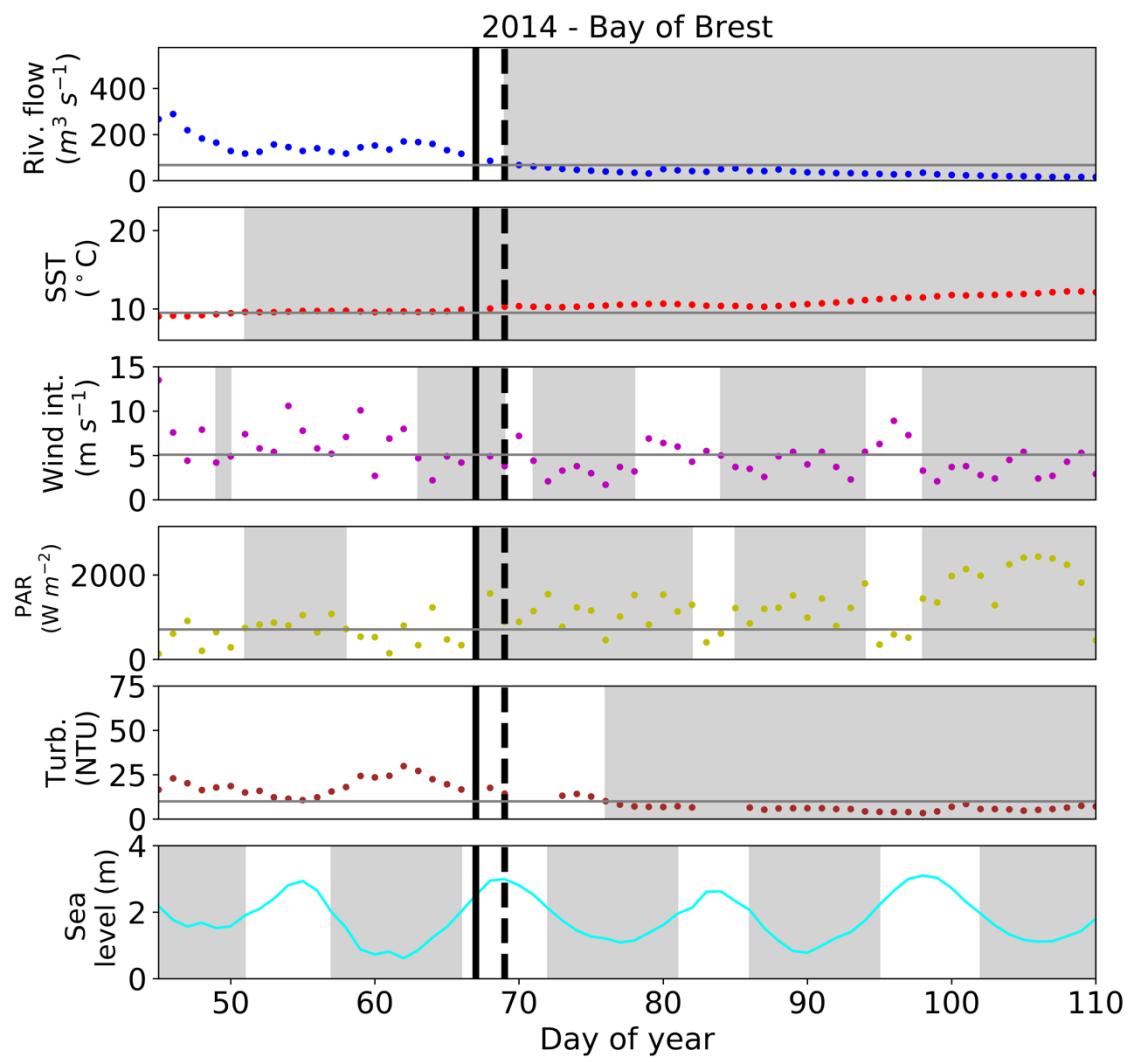
(f)



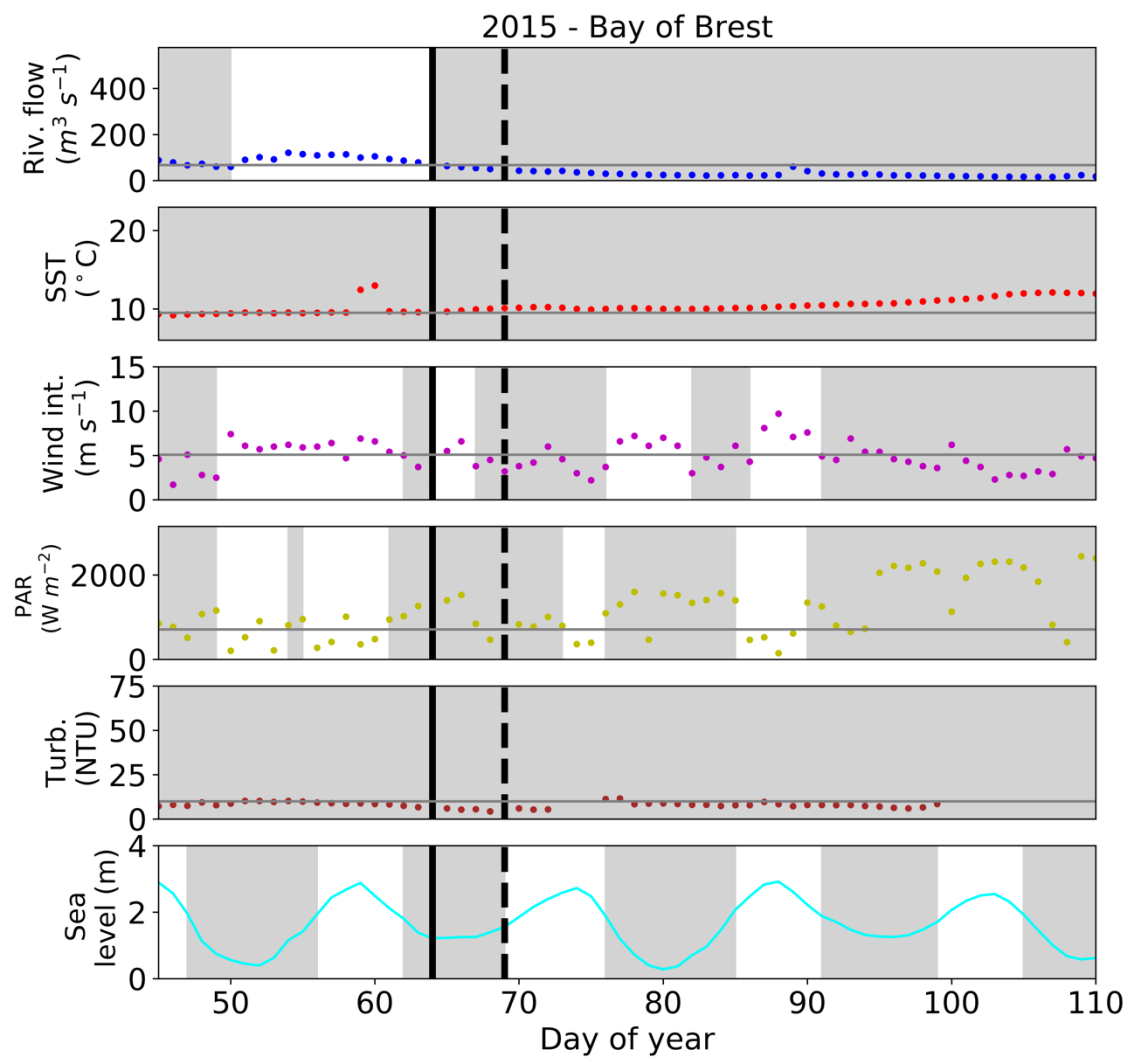
(g)



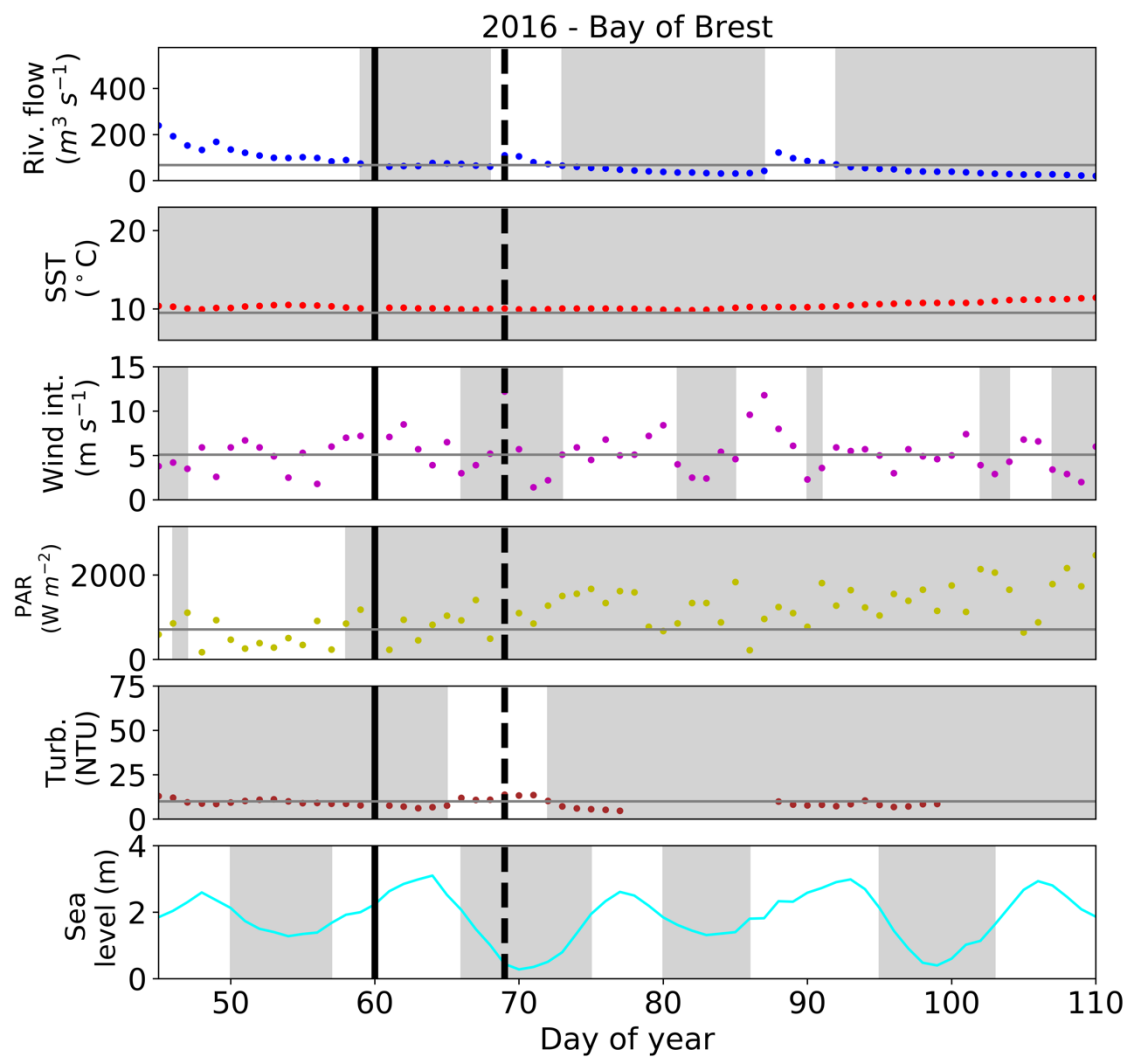
(h)



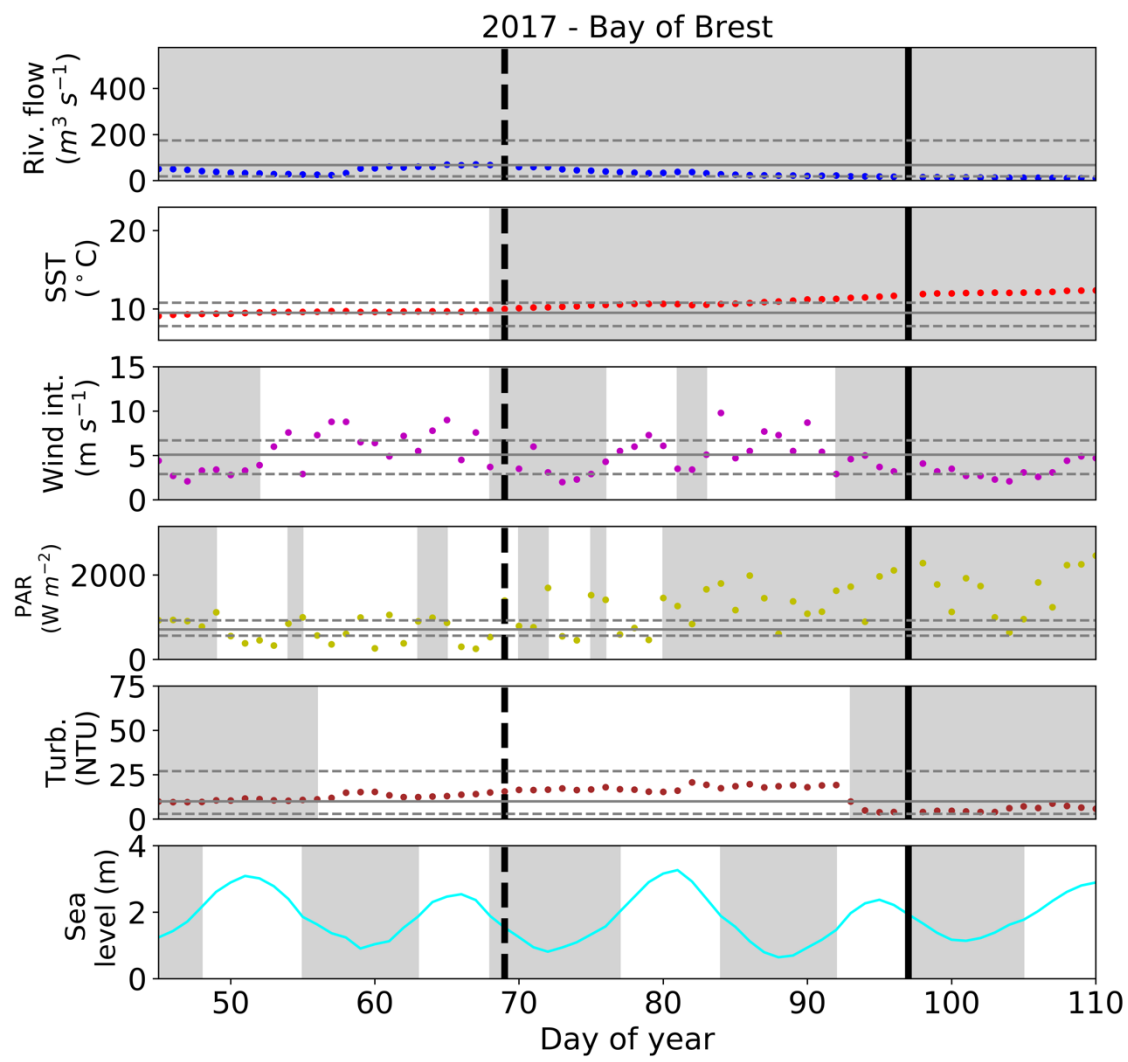
(i)



(i)



(k)



①

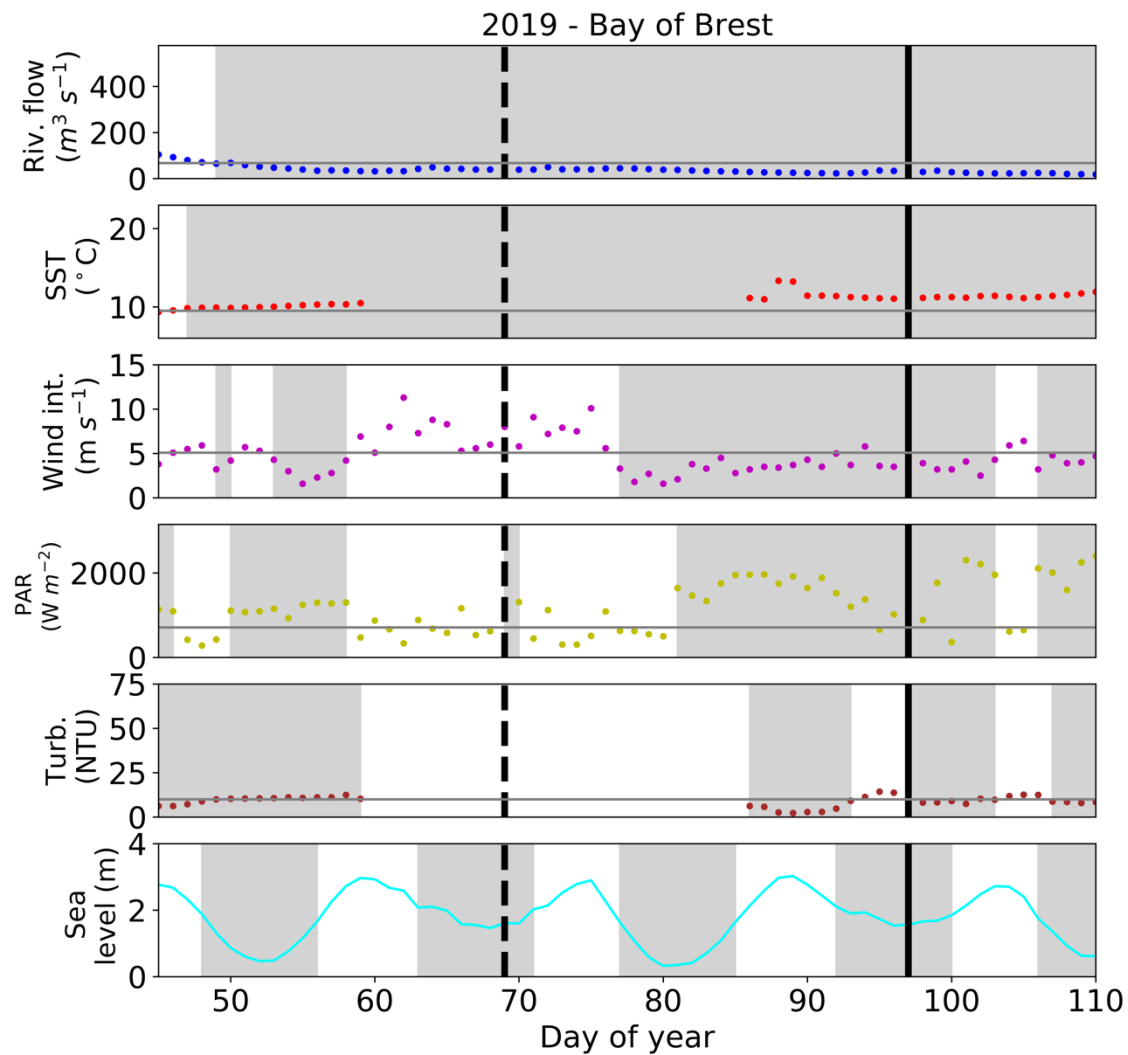
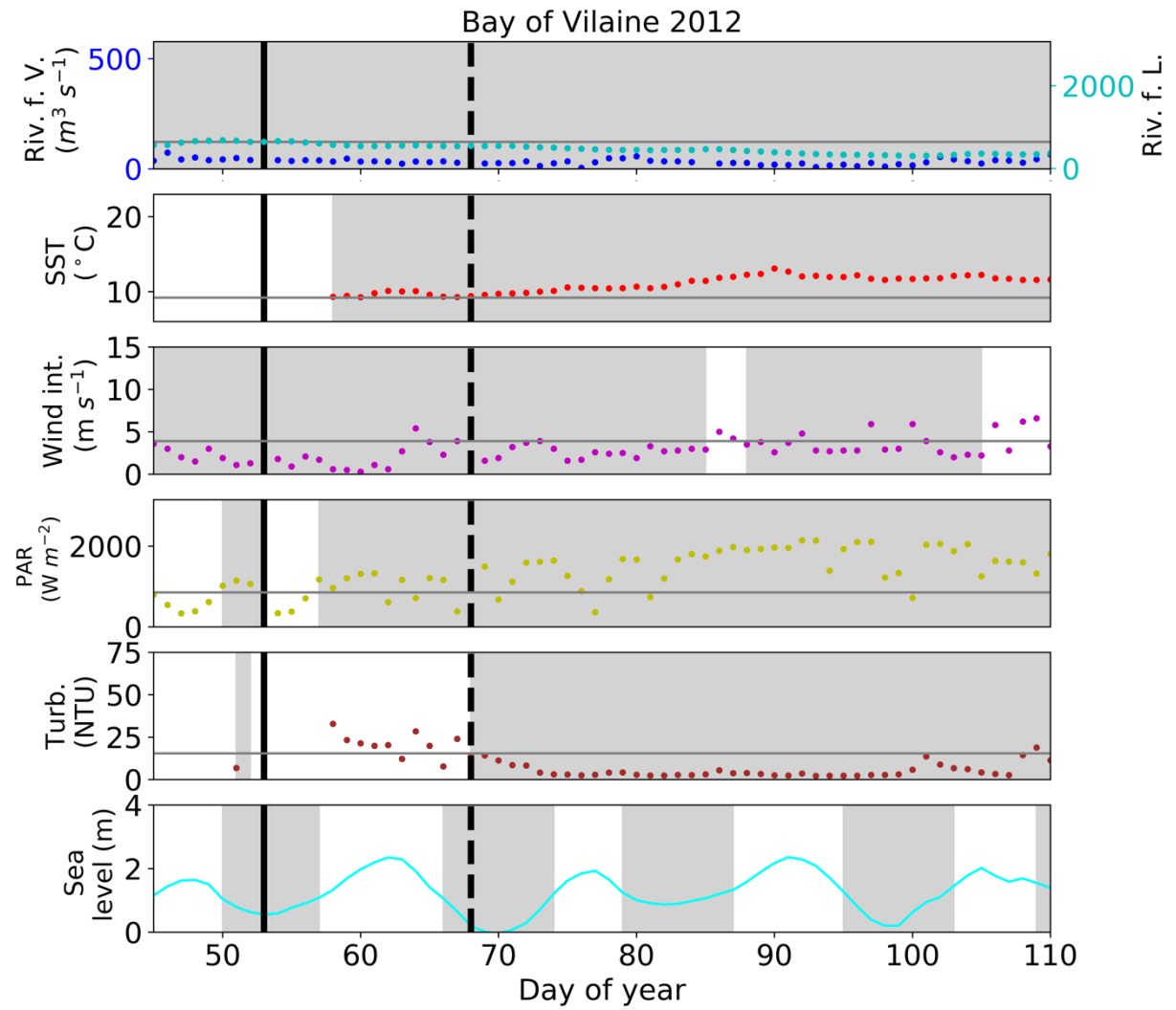
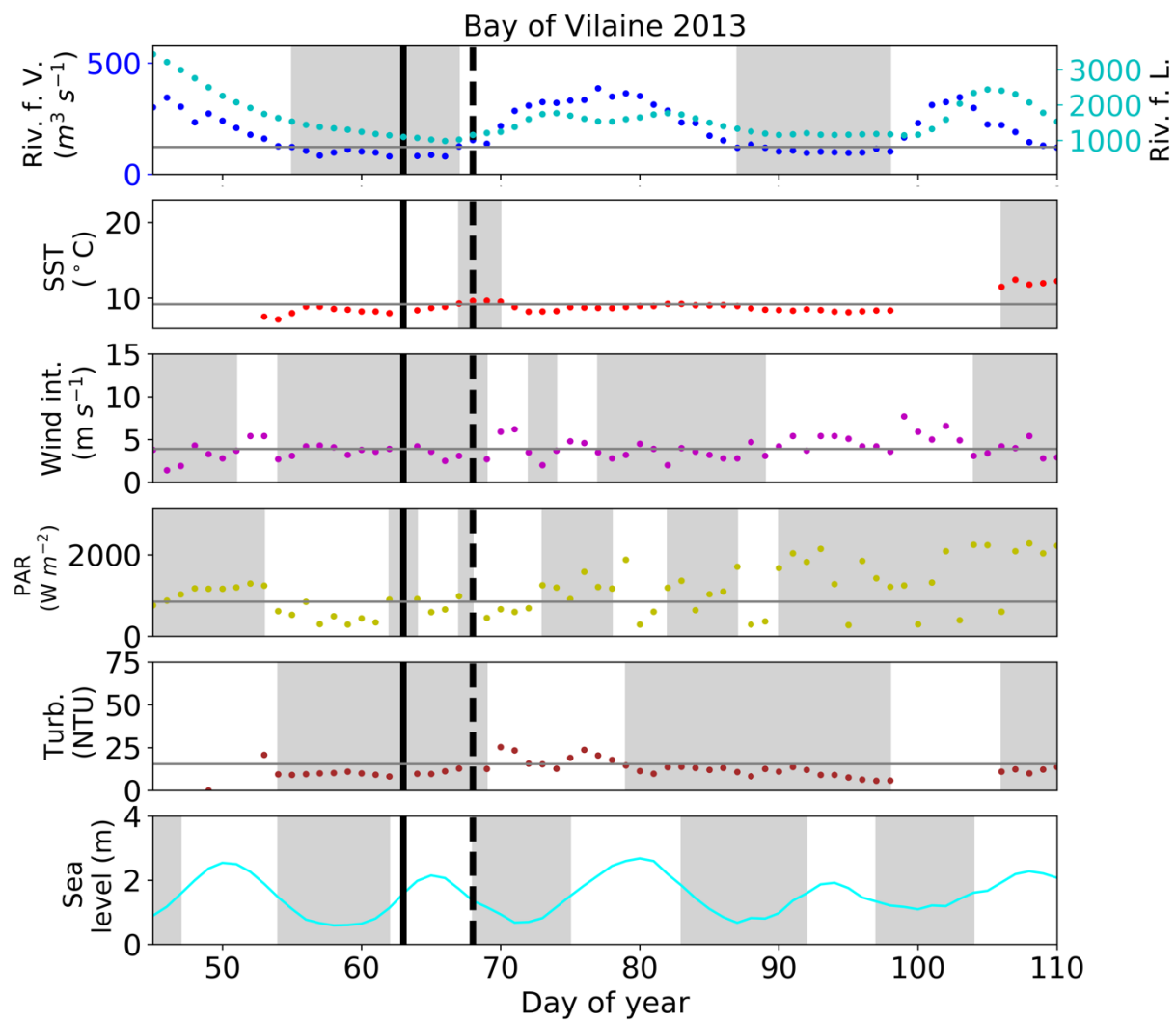


Figure S1: IPGP dates and environmental drivers: flow of the Aulne, Vilaine and Loire rivers, Sea Surface Temperature (SST), wind intensity, PAR, turbidity and sea level at high tide. Illustrations in the Bay of Brest (a) 2001 (b) 2002 (c) 2003 (d) 2004 (e) 2007 (f) 2010 (g) 2012 (h) 2014 (i) 2015 (j) 2016 (k) 2017 (l) 2019. The mean IPGP is represented by a dotted black line and the IPGP of the year is represented by a straight black line. Thresholds of each environmental driver are represented by grey vertical lines corresponding to the mean conditions 30 days around the IPGP date. Grey areas are time periods favorable to IPGP.

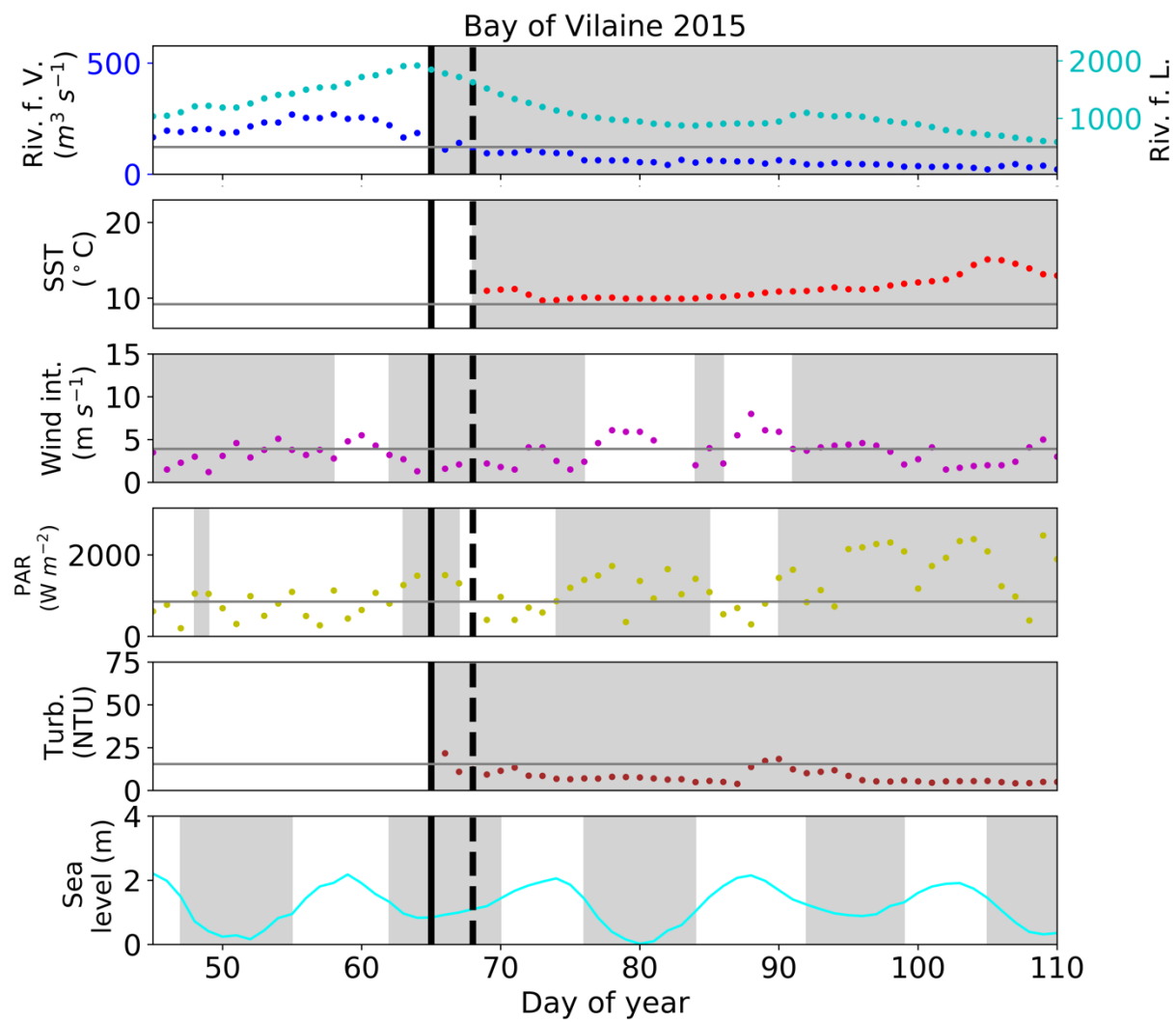
(a)



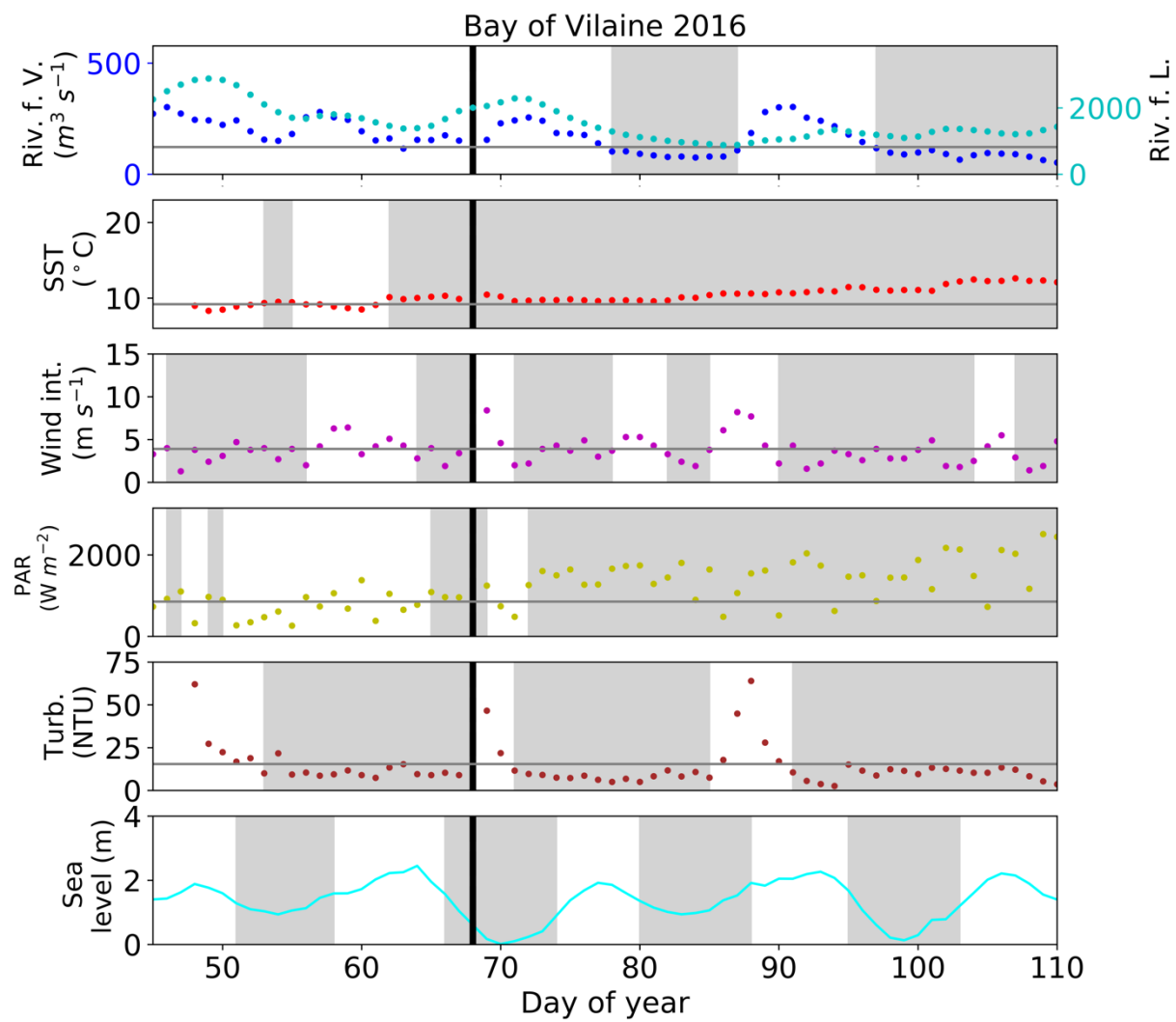
(b)



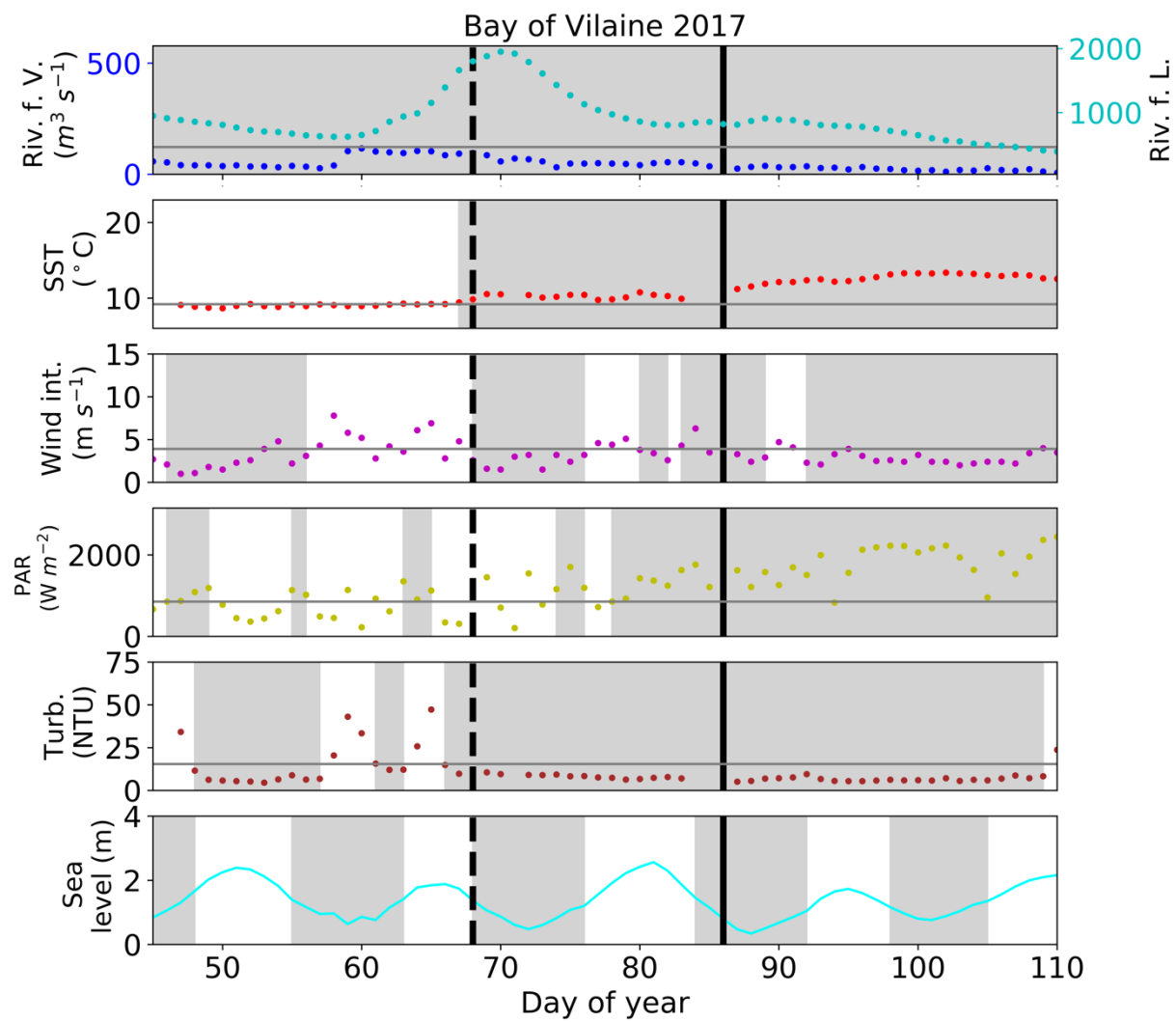
(c)



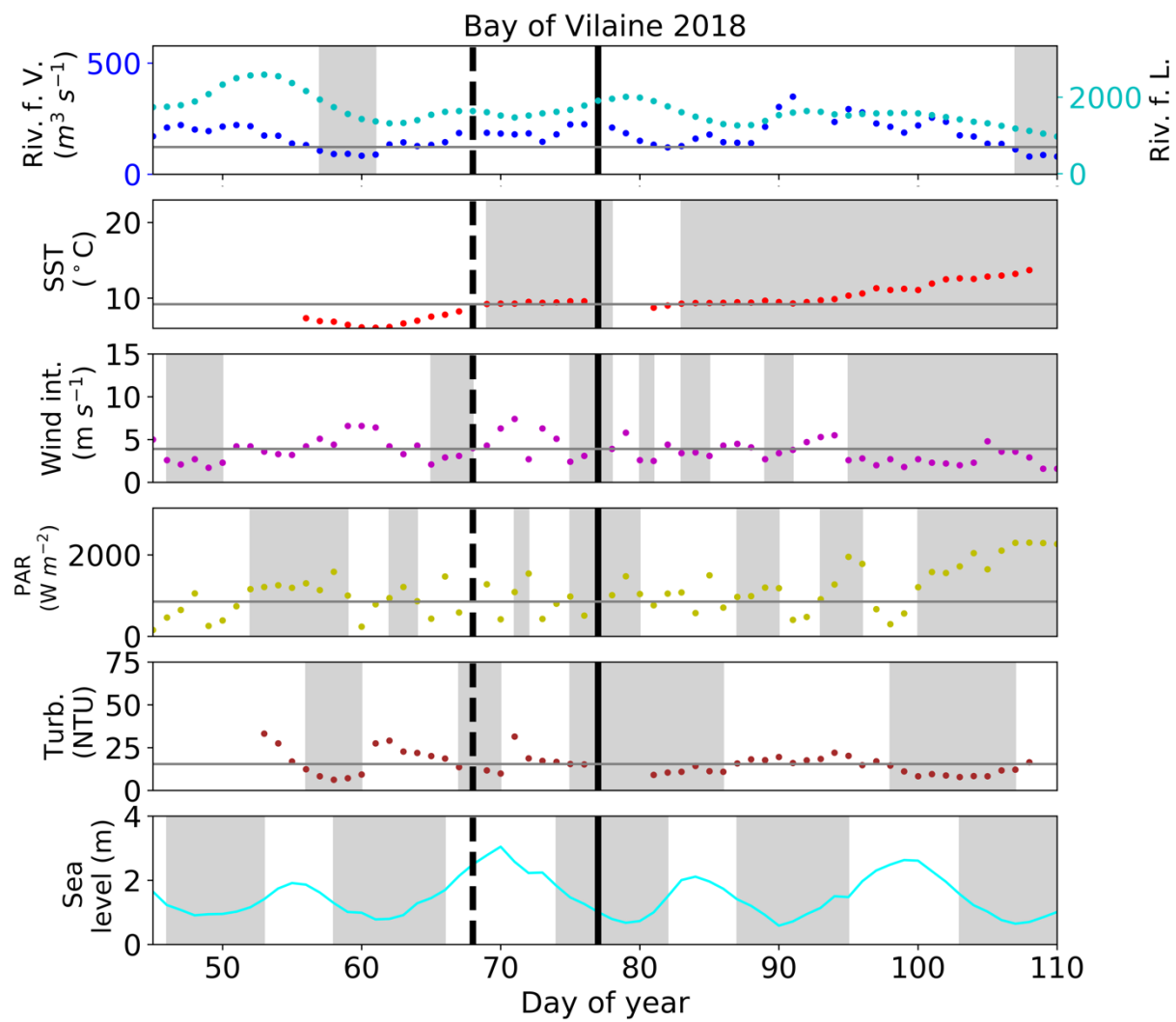
(d)



(e)



(f)



(g)

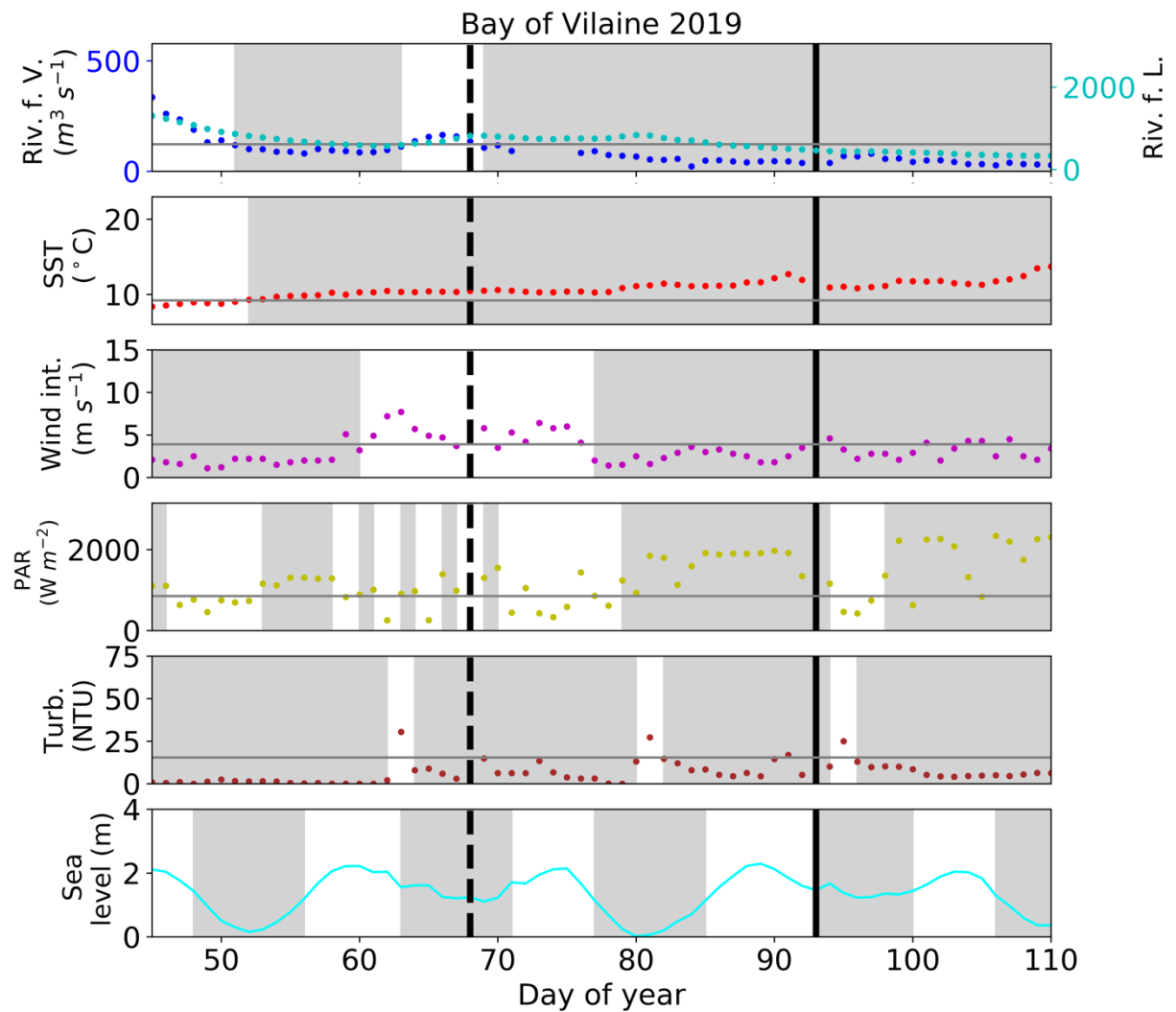


Figure S2: IPGP dates and environmental drivers: flow of the Aulne, Vilaine and Loire rivers, Sea Surface Temperature (SST), wind intensity, PAR, turbidity and sea level at high tide. Illustrations in the Bay of Vilaine (a) 2012 (b) 2013 (c) 2015 (d) 2016 (e) 2017 (f) 2018 (g) 2019. The mean IPGP is represented by a dotted black line and the IPGP of the year is represented by a straight black line. Thresholds of each environmental driver are represented by grey vertical lines corresponding to the mean conditions 30 days around the IPGP date. Grey areas are time periods favorable to IPGP.