Table S1. Validation of water temperature estimation in lakes Łebsko and Gardno on the basis of 1-day MODIS satellite data

Period	RMSE (°C)	MAE (°C)	BIAS1 (°C)	BIAS2 (°C)	BIAS3 (°C)	RMSE (°C)	MAE (°C)	BIAS1 (°C)	BIAS2 (°C)	BIAS3 (°C)
	Lebsko - Aqua MODIS - Day					Lebsko - Aqua MODIS - Night				
Apr	1.6	1.2	-3.6	0.0	7.5	2.5	2.0	-1.8	1.8	9.4
May	1.6	1.3	-3.7	-0.1	5.3	2.3	1.6	-1.2	1.5	10.2
Jun	1.9	1.4	-4.3	0.2	9.2	2.4	1.7	-2.3	1.5	8.7
Jul	1.7	1.3	-5.8	0.4	6.2	2.4	1.8	-1.8	1.7	8.5
Aug	1.7	1.3	-3.6	0.2	7.0	1.9	1.4	-2.0	1.2	7.6
Sep	1.7	1.4	-4.1	0.0	5.0	1.8	1.3	-2.7	0.9	6.6
Oct	1.5	1.2	-3.8	0.2	5.2	2.3	1.6	-2.7	1.1	8.6
Apr-Oct	1.7	1.3	-5.8	0.1	9.2	2.2	1.6	-2.7	1.4	10.2
Period	Lebsko - Terra MODIS - Day					Lebsko - Terra MODIS - Night				
Apr	1.6	1.2	-3.6	0.2	5.9	1.7	1.3	-3.3	1.0	5.9
May	1.7	1.3	-3.4	0.1	6.5	1.8	1.2	-2.5	0.7	9.3
Jun	1.8	1.3	-4.2	0.4	7.9	1.6	1.3	-2.9	0.7	5.1
Jul	2.0	1.5	-3.3	0.8	6.5	1.5	1.1	-3.0	0.7	5.5
Aug	1.8	1.4	-3.3	0.4	5.6	1.7	1.3	-2.3	0.9	6.3
Sep	1.7	1.4	-4.1	0.2	5.0	1.8	1.2	-2.7	0.7	10.4
Oct	1.6	1.2	-2.6	0.5	5.5	1.9	1.4	-2.1	0.9	8.6
Apr-Oct	1.8	1.3	-4.2	0.4	7.9	1.7	1.2	-3.3	0.8	10.4
Period	Gardno - Aqua MODIS - Day					Gardno - Aqua MODIS - Night				
Apr	2.2	1.8	-5.9	-1.4	4.9	2.0	1.5	-4.0	0.7	6.0
May	1.9	1.6	-7.0	-1.0	6.2	2.1	1.6	-5.0	1.2	8.2
Jun	1.9	1.6	-4.8	-0.7	6.4	2.2	1.7	-2.4	1.5	6.8
Jul	1.7	1.4	-7.1	-0.5	5.2	2.3	1.7	-1.8	1.6	7.6
Aug	1.7	1.3	-5.3	-0.3	6.2	2.0	1.6	-2.0	1.3	5.7
Sep	1.8	1.4	-5.3	-0.5	6.3	1.7	1.3	-2.2	0.8	7.3
Oct	1.5	1.1	-3.9	0.0	5.9	1.9	1.4	-2.3	1.0	5.9

Apr-Oct	1.9	1.5	-7.1	-0.7	6.4	2.1	1.5	-5.0	1.2	8.2
Period	Gardno - Terra MODIS - Day					Gardno - Terra MODIS - Night				
Apr	2.0	1.6	-5.3	-1.0	7.8	1.8	1.4	-5.6	-0.4	4.6
May	1.9	1.5	-6.8	-0.5	5.8	1.8	1.3	-5.6	0.0	6.4
Jun	1.8	1.5	-6.2	-0.2	6.5	1.7	1.3	-3.6	0.4	6.3
Jul	1.8	1.4	-5.2	-0.1	6.9	1.7	1.2	-3.1	0.4	6.2
Aug	1.7	1.3	-5.4	0.0	5.3	1.9	1.3	-2.6	0.7	10.4
Sep	1.8	1.4	-4.2	-0.1	6.9	1.7	1.3	-2.8	0.5	10.6
Oct	1.6	1.2	-3.7	0.3	5.3	2.0	1.4	-2.2	0.8	7.9
Apr-Oct	1.8	1.4	-6.8	-0.3	7.8	1.8	1.3	-5.6	0.3	10.6

BIAS1 – minimum value; BIAS2 – mean value; BIAS3 – maximum value

Table S2. Validation of water temperature estimation in lakes Łebsko and Gardno on the basis of 8-days MODIS satellite data

Period	RMSE (°C)	MAE (°C)	BIAS1 (°C)	BIAS2 (°C)	BIAS3 (°C)	RMSE (°C)	MAE (°C)	BIAS1 (°C)	BIAS2 (°C)	BIAS3 (°C)
	Lebsko - Aqua MODIS - Day					Lebsko - Aqua MODIS - Night				
Apr	2.2	1.8	-5.5	-1.5	2.7	2.1	1.6	-4.4	0.1	5.3
May	2.3	1.8	-6.5	-1.1	2.7	2.5	1.9	-5.3	0.6	6.6
Jun	2.1	1.7	-6.1	-0.5	5.6	2.3	1.9	-4.4	1.1	6.1
Jul	2.0	1.6	-5.2	0.1	5.1	2.3	1.8	-3.5	1.3	5.9
Aug	2.2	1.7	-5.2	0.9	6.7	2.9	2.4	-3.0	2.1	7.3
Sep	2.3	1.8	-1.8	1.4	5.7	2.8	2.3	-1.1	2.1	7.0
Oct	2.3	1.8	-1.6	1.5	5.6	3.2	2.5	-1.1	2.3	9.8
Apr-Oct	2.2	1.7	-6.5	0.1	6.7	2.6	2.0	-5.3	1.4	9.8
Period	Lebsko - Terra MODIS - Day					Lebsko - Terra MODIS - Night				
Apr	2.3	1.8	-5.6	-1.4	2.6	1.9	1.5	-4.6	-0.6	3.7
May	2.3	1.8	-5.9	-0.9	3.8	2.1	1.6	-5.6	-0.3	4.9
Jun	2.1	1.7	-5.8	-0.3	5.9	2.0	1.6	-4.4	0.2	4.9
Jul	2.2	1.7	-3.5	0.5	5.1	2.3	1.9	-4.6	0.8	5.6
Aug	2.4	2.0	-4.9	1.1	7.5	2.7	2.3	-4.6	1.7	6.4
Sep	2.3	1.9	-1.8	1.5	5.3	2.8	2.1	-1.8	1.9	8.7
Oct	2.6	2.0	-1.6	1.9	7.5	2.8	2.3	-0.8	2.3	7.0
Apr-Oct	2.3	1.9	-5.9	0.3	7.5	2.4	1.9	-5.6	0.8	8.7
Period	Gardno - Aqua MODIS - Day					Gardno - Aqua MODIS - Night				
Apr	3.3	2.9	-6.1	-2.8	1.9	2.0	1.7	-4.2	-0.6	3.2
May	3.1	2.5	-8.8	-2.1	4.2	2.6	1.9	-6.0	0.1	7.8
Jun	2.8	2.3	-7.3	-1.5	4.4	2.3	1.9	-4.3	0.7	5.7
Jul	2.3	1.9	-5.3	-0.8	4.4	2.4	2.0	-4.0	1.1	6.4
Aug	2.1	1.7	-6.4	0.4	4.9	2.9	2.4	-3.2	2.1	6.4
Sep	1.9	1.6	-3.0	0.8	4.9	2.8	2.2	-1.4	2.0	5.9
Oct	2.5	1.9	-2.8	1.3	8.8	2.7	2.2	-1.5	1.9	6.6

Apr-Oct	2.6	2.1	-8.8	-0.7	8.8	2.6	2.0	-6.0	1.1	7.8
Period	Gardno - Terra MODIS - Day					Gardno - Terra MODIS - Night				
Apr	3.1	2.6	-6.3	-2.5	1.9	2.6	2.0	-5.3	-1.6	4.3
May	3.0	2.3	-8.9	-1.7	4.3	2.5	1.9	-6.9	-1.2	6.0
Jun	2.6	2.1	-6.8	-1.0	4.2	2.4	1.9	-4.9	-0.3	5.2
Jul	2.1	1.7	-4.9	-0.4	5.0	2.2	1.8	-3.9	0.3	5.9
Aug	2.5	2.0	-4.8	0.9	6.8	3.0	2.3	-4.2	1.6	13.0
Sep	2.4	1.9	-2.9	1.3	8.1	2.7	2.0	-1.4	1.7	10.2
Oct	2.5	2.0	-3.8	1.5	6.6	2.9	2.3	-1.0	2.2	7.2
Apr-Oct	2.6	2.1	-8.9	-0.3	8.1	2.6	2.0	-6.9	0.4	13.0

BIAS1 – minimum value; BIAS2 – mean value; BIAS3 – maximum value