Table S1. Changes in psychrophilic bacterial counts (PBC, log cfu g⁻¹) in rainbow trout fillets treated with distilled water (C); ascorbic acid (ASC) and aqueous extracts of *Crassiphycus corneus* (*Cc*), *Ulva ohnoi* (*Uo*), *Arthrospira platensis* (*Ap*) and *Haematococcus pluvialis* (*Hp*) during a 12-day cold storage (4 °C) period. Values are given as mean ± standard deviation (n = 4 fillets).

dpm	C	ASC	*Cc*	*Uo*	*Ap*	*Hp*	*p*
1	2.2 ± 0.1 [A,d]	1.8 ± 0.1 [A,c]	1.9 ± 0.1 [A,c]	1.8 ± 0.1 [A,c]	1.3 ± 0.1 [A,b]	0.9 ± 0.1 [A,a]	<0.001
4	4.7 ± 0.1 [B,d]	3.0 ± 0.1 [B,c]	2.0 ± 0.1 [A,b]	1.6 ± 0.1 [A,a]	2.0 ± 0.1 [B,b]	1.7 ± 0.1 [B,a]	<0.001
6	5.5 ± 0.2 [C,d]	4.2 ± 0.1 [C,c]	4.0 ± 0.1 [B,bc]	3.1 ± 0.1 [B,a]	3.9 ± 0.1 [C,b]	3.9 ± 0.1 [C,b]	0.001
8	5.7 ± 0.1 [C,c]	4.8 ± 0.1 [D,b]	4.8 ± 0.1 [C,b]	4.9 ± 0.1 [C,b]	4.9 ± 0.1 [D,b]	5.0 ± 0.3 [D,a]	<0.001
12	6.5 ± 0.1 [D,c]	5.4 ± 0.1 [E,a]	4.7 ± 0.2 [C,a]	5.0 ± 0.1 [C,a]	4.7 ± 0.1 [D,a]	4.8 ± 0.1 [D,a]	0.001
p	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	

Superscript uppercase letters indicate differences attributable to storage time within each treatment. Superscript lower-case letters indicate differences attributable to treatments within each storage time ($p < 0.05$). dpm: days postmortem.

Table S2. Changes in lipid oxidation (estimated as mg MDA kg^{-1} content) in rainbow trout fillets treated with distilled water (C); ascorbic acid (ASC) and aqueous extracts of *Crassiphycus corneus* (*Cc*), *Ulva ohnoi* (*Uo*), *Arthrospira platensis* (*Ap*) and *Haematococcus pluvialis* (*Hp*) during a 12-day cold storage (4 °C) period. Values are given as mean ± standard deviation (n = 4 fillets).

dpm	C	ASC	*Cc*	*Uo*	*Ap*	*Hp*	*p*
1	1.6 ± 0.1 [A,d]	1.4 ± 0.2 [A,c]	1.0 ± 0.1 [A,b]	0.6 ± 0.2 [A,a]	1.2 ± 0.1 [A,bc]	1.4 ± 0.1 [A,c]	0.023
4	3.9 ± 0.4 [B,d]	2.6 ± 0.1 [B,c]	2.0 ± 0.2 [B,b]	1.8 ± 0.4 [B,ab]	2.1 ± 0.1 [B,b]	1.7 ± 0.1 [A,a]	<0.001
6	5.5 ± 0.6 [C,e]	3.9 ± 0.1 [C,d]	2.6 ± 0.3 [BC,a]	3.0 ± 0.1 [C,b]	3.4 ± 0.1 [C,c]	3.8 ± 0.2 [B,d]	<0.001
8	7.1 ± 0.4 [D,c]	4.9 ± 0.4 [D,b]	3.2 ± 0.3 [B,a]	4.6 ± 0.3 [D,b]	3.7 ± 0.4 [CD,a]	3.4 ± 0.4 [B,a]	0.001
12	8.1 ± 0.3 [D,d]	6.4 ± 0.4 [E,c]	3.9 ± 0.2 [C,a]	4.0 ± 0.3 [D,a]	3.9 ± 0.1 [D,a]	4.9 ± 0.1 [C,b]	<0.001
p	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	

Superscript uppercase letters indicate differences attributable to storage time within each treatment. Superscript lowercase letters indicate differences attributable to treatments within each storage time (*p* < 0.05). dpm: days postmortem.

Table S3. Changes in pH and water holding capacity (WHC) in rainbow trout fillets treated with distilled water (C); ascorbic acid (ASC) and aqueous extracts of *Crassiphycus corneus* (*Cc*), *Ulva ohnoi* (*Uo*), *Arthrospira platensis* (*Ap*) and *Haematococcus pluvialis* (*Hp*) during a 12-day cold storage (4 °C) period. Values are given as mean ± standard deviation (n = 4 fillets).

	dpm	C	ASC	*Cc*	*Uo*	*Ap*	*Hp*	*p*
pH	1	6.67 ± 0.02 [A,a]	6.60 ± 0.02 [A, ab]	6.58 ± 0.03 [A c]	6.63 ± 0.02 [A, bd]	6.57 ± 0.03 [A, c]	6.56 ± 0.02 [A, c]	0.042
	4	6.68 ± 0.04 [A]	6.65 ± 0.02 [B]	6.61 ± 0.02 [A]	6.65 ± 0.03 [A]	6.56 ± 0.02 [A]	6.58 ± 0.02 [A]	0.600
	6	6.70 ± 0.04 [A]	6.63 ± 0.02 [B]	6.59 ± 0.02 [A]	6.65 ± 0.03 [A]	6.59 ± 0.03 [A]	6.59 ± 0.04 [A]	0.297
	8	6.72 ± 0.02 [A, a]	6.68 ± 0.03 [C, b]	6.65 ± 0.03 [B, b]	6.68 ± 0.02 [AB, b]	6.61 ± 0.03 [A, c]	6.66 ± 0.02 [B, b]	0.001
	12	6.79 ± 0.02 [B, a]	6.76 ± 0.04 [D, a]	6.76 ± 0.05 [C, a]	6.70 ± 0.03 [B, ab]	6.66 ± 0.01 [B, b]	6.72 ± 0.02 [C, ab]	0.024
	p	0.045	<0.001	<0.001	0.002	0.045	<0.001	
WHC	1	71.0 ± 2.6 [C,a]	70.7 ± 2.1 [C,a]	70.8 ± 3.0 [B,a]	70.9 ± 1.3 [B,a]	71.2 ± 0.9 [B,a]	76.4 ± 0.9 [B,b]	<0.001
	4	70.6 ± 1.9 [C,a]	68.1 ± 2.3 [B,a]	70.1 ± 2.4 [B,a]	68.3 ± 1.5 [AB,a]	70.7 ± 1.4 [B,a]	76.5 ± 0.9 [B,b]	<0.001
	6	68.6 ± 1.8 [C]	68.5 ± 2.3 [B]	68.2 ± 1.4 [AB]	69.2 ± 1.3 [AB]	69.3 ± 0.8 [B]	71.4 ± 2.3 [A]	0.183
	8	66.6 ± 1.3 [B,a]	67.4 ± 1.6 [B,a]	67.5 ± 1.6 [AB,a]	68.3 ± 0.7 [AB,a]	68.1 ± 0.8 [A,a]	70.5 ± 0.6 [A,a]	0.004
	12	63.7 ± 1.9 [A,a]	64.9 ± 1.7 [A,ab]	66.2 ± 1.4 [A,b]	66.5 ± 1.4 [A,b]	66.3 ± 0.9 [A,b]	69.6 ± 1.1 [A,c]	<0.001
	p	<0.001	0.002	<0.001	<0.001	<0.001	0.002	

Superscript uppercase letters indicate differences attributable to storage time within each treatment. Superscript lowercase letters indicate differences attributable to treatments within each storage time ($p < 0.05$). dpm: days postmortem.