Table S1. Conversion factors for reared fish species, and for crayfish.

	WW/DW	References:
Perch	4.07	Schreckenbach K, Knösche R, Ebert K (2001) Nutrient and energy content of freshwater fishes. Journal of Applied Ichthyology. 17: 142-144.
Common Carp	3.73	Schreckenbach K, Knösche R, Ebert K (2001) Nutrient and energy content of freshwater fishes. Journal of Applied Ichthyology. 17: 142-144.
Rud	3.93	Schreckenbach K, Knösche R, Ebert K (2001) Nutrient and energy content of freshwater fishes. Journal of Applied Ichthyology. 17: 142-144.
Roach	4.02	Schreckenbach K, Knösche R, Ebert K (2001) Nutrient and energy content of freshwater fishes. Journal of Applied Ichthyology. 17: 142-144.
Crayfish	4.22	Xu W-N, Liu W-B, Shen M-F, Li G-F, Wang Y, Zhang W-W (2012) Effect of different dietary protein and lipid levels on growth performance, body composition of juvenile red swamp crayfish (Procambarus clarkii). Aquaculture International. 21: 687-697.

Table S2. Average and total wet weight (g) of fish harvested at the end of the rearing period in replicates 1 and 2 of the semi-extensive (SE), intensive-coupled (IC) and intensive (I) ponds

	SE1		SE2		IC1		IC2		I1		I2	
	Av. weight (g)	Tot. weight (g)	Av. weight (g)	Tot. weight (g)	Av. weight (g)	Tot. weight (g)	Av. weight (g)	Tot. weight (g)	Av. weight (g)	Tot. weight (g)	Av. weight (g)	Tot. weight (g)
Eurasian perch	81.3	244	104.1	417	79.7	319	94.0	658	126.2	1262	72.6	654
Common carp	89.5	21829	113.3	26062	186.2	96102	186.4	93766	254.2	115684	218.8	110698
Roach	85.8	2231	114.7	3442	87.3	5063	112.4	5956	85.4	4441	84.9	4416
Juvenile roach	4.3	4671	16.6	116	4.7	1396	3.1	3562	2.7	2527	1.5	446
Crayfish	17.0	4912	18.9	1742	9.7	1255	34.6	415	-	-	25.1	352
Total weight		33 887		31 779		104 135		104 357		123 914		116 566

Table S3. Diets of the consumer trophic groups in replicates 1 and 2 of ponds of the three treatments: semi-extensive (SE), intensive (I) and intensive-coupled (IC). BMI: benthic macroinvertebrates

Group	Pond	Juvenile roach	Crayfish	BMI	Zoo-plankton	Phyto-plankton	Feed	Detritus
Eurasian perch	SE1	16%	18%	10%	56%	0%	0%	0%
	SE2	5%	25%	15%	55%	0%	0%	0%
	IC1	16%	38%	20%	4%	0%	22%	0%
	IC2	26%	25%	22%	5%	0%	22%	0%
	I1	22%	0%	26%	30%	0%	22%	0%
	I2	18%	32%	18%	14%	0%	18%	0%
Common carp	SE1	3%	9%	0%	28%	8%	0%	52%
	SE2	0%	2%	2%	22%	10%	0%	64%
	IC1	0%	0%	0%	0%	0%	100%	0%
	IC2	0%	0%	0%	0%	0%	100%	0%
	I1	0%	0%	1%	0%	0%	85%	14%
	I2	0%	0%	0%	1%	0%	83%	16%
Adult roach	SE1	0%	0%	2%	25%	14%	0%	59%
	SE2	0%	0%	2%	24%	14%	0%	60%
	IC1	0%	3%	2%	10%	0%	59%	26%
	IC2	0%	0%	5%	0%	0%	65%	30%
	I1	0%	0%	5%	20%	10%	25%	40%
	I2	0%	0%	9%	19%	8%	22%	42%
Juvenile roach	SE1	0%	0%	0%	40%	20%	0%	40%
	SE2	0%	0%	2%	35%	23%	0%	40%
	IC1	0%	0%	6%	20%	22%	0%	52%
	IC2	0%	0%	8%	0%	25%	0%	67%
	I1	0%	0%	0%	44%	26%	0%	30%
	I2	0%	0%	0%	45%	25%	0%	30%
Crayfish	SE1	0%	0%	2%	25%	15%	0%	58%
	SE2	0%	0%	4%	14%	20%	0%	62%
	IC1	0%	0%	9%	4%	2%	10%	75%
	IC2	0%	0%	10%	0%	10%	5%	75%
	I1							
	I2	0%	0%	11%	15%	22%	2%	50%
BMI	SE1	0%	0%	24%	11%	24%	0%	41%
	SE2	0%	0%	9%	8%	30%	0%	53%
	IC1	5%	0%	17%	9%	18%	1%	50%
	IC2	2%	0%	15%	9%	23%	0%	51%
	I1	2%	0%	10%	13%	20%	1%	54%
	I2	0%	0%	20%	14%	18%	1%	47%
Zooplankton	SE1	0%	0%	0%	11%	27%	0%	62%
	SE2	0%	0%	0%	15%	40%	0%	45%
	IC1	0%	0%	0%	12%	54%	0%	34%
	IC2	0%	0%	0%	10%	63%	0%	27%
	I1	0%	0%	0%	14%	52%	0%	34%
	I2	0%	0%	0%	18%	34%	0%	48%

Table S4. Performance indicators of replicates 1 and 2 of the ponds calculated using EwE software; semi-extensive (SE), intensive (I) and intensive-coupled (IC) ponds

Parameter	Unit	**SE1**	**SE2**	**IC1**	**IC2**	**I1**	**I2**
Sum of all consumption	$g/m^2/280$ d	271.24	264.64	270.63	270.27	386.84	394.36
Sum of all exports	$g/m^2/280$ d	110.85	195.11	205.50	122.06	261.31	743.49
Sum of all respiratory flows	$g/m^2/280$ d	106.01	105.96	143.90	144.14	189.43	202.36
Sum of all flows into detritus	$g/m^2/280$ d	267.13	331.36	467.32	374.08	584.67	1082.95
Total system throughput	$g/m^2/280$ d	755.24	897.07	1087.35	910.55	1422.25	2423.16
Sum of all production	$g/m^2/280$ d	303.01	386.10	223.21	139.17	370.32	854.85
Calculated total net primary production	$g/m^2/280$ d	227.82	314.93	155.62	71.79	267.60	759.74
Total primary production/total respiration	-	2.15	2.97	1.08	0.50	1.41	3.75
Net system production	$g/m^2/280$ d	121.81	208.97	11.73	-72.36	78.17	557.37
Total primary production/total biomass	-	17.05	22.37	4.51	2.10	6.03	17.18
Total biomass/total throughput	g/m^2	0.0177	0.0157	0.0318	0.0376	0.0312	0.0182
Total biomass (excluding detritus)	$g/m^2/280$ d	13.36	14.08	34.53	34.21	44.38	44.22
Connectance Index	-	0.422	0.438	0.460	0.397	0.490	0.460
System Omnivory Index	-	0.272	0.208	0.138	0.113	0.149	0.207
Ecopath pedigree index	-	0.40	0.40	0.40	0.40	0.38	0.40
Throughput cycled (excluding detritus)	t/km^2/year	21.28	25.22	3.484	3.314	11.29	16.54
Predatory cycling index	% of throughput without detritus	9.631	10.76	2.126	2.041	4.426	6.392
Throughput cycled (including detritus)	t/km^2/year	129.5	94.32	11.64	12.52	55.27	60.26
Finn's cycling index	% of total throughput	17.15	12.00	1.07	1.38	3.89	2.49
Finn's mean path length	-	3.483	4.109	3.112	3.421	3.155	2.562
Finn's straight-through path length	without detritus	1.884	1.974	1.115	1.016	1.287	1.197
Finn's straight-through path length	with detritus	2.885	3.615	3.079	3.373	3.033	2.498