

1 **Appendix S2: Supplementary tables**

2 **Table 1.** Overview of all input parameter values for each species and sources.

	<i>Z. scopas</i>	<i>B. undulatus</i>	<i>E. merra</i>	Source
$Q_C$	31.85 (4.00)	32.36 (3.83)	35.33 (3.24)	This study
$Q_N$	10.00 (1.00)	9.09 (0.71)	9.64 (0.89)	This study
$Q_P$	5.83 (1.10)	5.41 (1.24)	4.39 (0.82)	This study
$D_C$	22.60 (4.00)	21.60 (7.00)	20.00 (3.60)	Pillans et al. (2004), Allgeier et al. (2015)
$D_N$	0.77 (1.0e-02)	4.50 (1.7e+00)	4.20 (9.0e-01)	Suzumura et al. (2002), Allgeier et al. (2015)
$D_P$	0.35 (1e-02)	0.60 (3e-01)	0.60 (4e-01)	Lin et al. (2008), Allgeier et al. (2015)
$a_C$	0.80 ( )	0.80 ( )	0.80 ( )	Fish Bioenergetics 4.0
$a_N$	0.80 ( )	0.80 ( )	0.80 ( )	Fish Bioenergetics 4.0
$a_P$	0.70 ( )	0.70 ( )	0.70 ( )	Fish Bioenergetics 4.0
$l_\infty$	19 ( )	26 ( )	22 ( )	This study
$\kappa$	0.69 (6e-02)	0.15 (8e-03)	0.45 (1e-03)	This study
$t_0$	-2.1e-02 ( )	-3.1e-01 ( )	-6.0e-02 ( )	This study
$lw_a$	2.5e-02 (2.7e-03)	3.5e-02 (1.2e-02)	1.1e-02 (2.7e-03)	Froese et al. (2013)
$lw_b$	2.98 (2.6e-02)	3.00 (7.7e-02)	3.06 (5.6e-02)	Froese et al. (2013)
$m_{dw}$	0.250483293190712 ( )	0.282414512324743 ( )	0.293540629343531 ( )	This study
$F_{0Nz}$	3.7e-03 (4.6e-03)	3.7e-03 (4.6e-03)	3.7e-03 (4.6e-03)	This study
$F_{0Pz}$	3.7e-04 (5.1e-04)	3.7e-04 (5.1e-04)	3.7e-04 (5.1e-04)	This study
$f_0$	4.0e-03 (4.6e-04)	2.0e-03 (6.0e-04)	1.8e-03 (3.2e-04)	This study
$\alpha$	0.69 (3.0e-02)	0.81 (6.0e-02)	0.80 (4.2e-02)	This study
$\theta$	1.83 ( )	3.15 ( )	2.80 ( )	This study
$r$	2.00 ( )	1.95 ( )	1.50 ( )	Fishbase
$h$	2.00 ( )	3.37 ( )	4.10 ( )	Fishbase

3 **Table 2.** Predicted ingestion rates in dry mass per mass wet weight of the fish. 95% CI are  
 4 reported for biomass and ingestion rates in between brackets.

Species	TL (cm)	Biomass (g)	Ingestion rate (g d <sup>-1</sup> )
<i>Z. scopas</i>	2.00	0.2 (0.2-0.2)	259.4 (129.3-523)
<i>Z. scopas</i>	3.00	0.6 (0.5-0.8)	167.8 (83.3-349.2)
<i>Z. scopas</i>	4.00	1.5 (1.2-2)	122.2 (63.1-246.8)
<i>Z. scopas</i>	5.00	3 (2.2-4)	95.4 (49.2-196.5)
<i>Z. scopas</i>	6.00	5.1 (3.8-6.8)	78.8 (40.5-155)
<i>Z. scopas</i>	7.00	8 (5.9-10.9)	66.7 (34.2-129.8)
<i>Z. scopas</i>	8.00	12 (8.8-16.4)	56.8 (29-110.9)
<i>Z. scopas</i>	9.00	17.1 (12.5-23.5)	50.1 (24.7-97.6)
<i>Z. scopas</i>	10.00	23.2 (17-32.4)	45.1 (22.1-86.6)
<i>Z. scopas</i>	11.00	30.9 (22.3-42.4)	40.8 (19.3-79.1)
<i>Z. scopas</i>	12.00	40.4 (29.5-56.1)	37.1 (17.2-76.1)
<i>Z. scopas</i>	13.00	50.9 (36.9-71.1)	33.5 (14.8-71.8)
<i>Z. scopas</i>	14.00	63.4 (44.6-89.7)	30.9 (13.2-70.6)

<i>Z. scopas</i>	15.00	78.2 (55.9-108.6)	28.2 (11.7-68.4)
<i>Z. scopas</i>	16.00	95.1 (67.6-135.5)	26.4 (11-65.1)
<i>Z. scopas</i>	17.00	113.6 (80.1-159.2)	24.7 (9.3-63.4)
<i>Z. scopas</i>	18.00	134.2 (93.8-191.6)	24.1 (8.4-65.3)
<i>Z. scopas</i>	19.00	156.9 (111.8-226.7)	22.3 (7.3-64)
<i>Z. scopas</i>	20.00	183.8 (129.2-258.9)	21.1 (6.8-57.6)
<i>Z. scopas</i>	21.00	211.2 (148.2-298.3)	21 (6-60.1)
<i>Z. scopas</i>	22.00	245.9 (170.8-347.6)	19.8 (5.3-58.8)
<i>Z. scopas</i>	23.00	278.3 (197.1-403.4)	18.1 (4.9-58.7)
<i>Z. scopas</i>	24.00	317.9 (221.6-457.2)	18.5 (4.3-57.3)
<i>Z. scopas</i>	25.00	356.9 (252.2-518.9)	17.8 (4.2-56.5)
<i>B. undulatus</i>	2.00	0.3 (0.1-0.6)	74.9 (30.3-196.5)
<i>B. undulatus</i>	3.00	0.9 (0.4-2.1)	48.3 (19.2-135.5)
<i>B. undulatus</i>	4.00	2.1 (0.9-5.1)	36.4 (14.2-104.6)
<i>B. undulatus</i>	5.00	4.2 (1.8-10.3)	28.9 (10.4-84.5)
<i>B. undulatus</i>	6.00	7.1 (2.8-17.8)	24.3 (8.4-77.1)
<i>B. undulatus</i>	7.00	11.5 (4.5-29.1)	21.3 (7.5-64.3)
<i>B. undulatus</i>	8.00	17.2 (6.5-45.1)	19 (6.8-65.9)
<i>B. undulatus</i>	9.00	24.9 (9.5-63.6)	17.6 (5.8-61.7)
<i>B. undulatus</i>	10.00	34.3 (12.1-91)	15.5 (5.2-58.1)
<i>B. undulatus</i>	11.00	44.2 (16.7-120.5)	15.5 (4.8-63.1)
<i>B. undulatus</i>	12.00	58.3 (22-157.8)	14.9 (4.8-56.1)
<i>B. undulatus</i>	13.00	72.2 (26.3-202.3)	14 (4.2-60.6)
<i>B. undulatus</i>	14.00	91.7 (33.5-254.7)	13.6 (4.1-61.4)
<i>B. undulatus</i>	15.00	112.4 (41.4-319.3)	12.9 (3.7-56.7)
<i>B. undulatus</i>	16.00	138.7 (47.9-409.7)	12.7 (3.4-59.2)
<i>B. undulatus</i>	17.00	165.4 (56.4-476.2)	12.6 (3.6-60.9)
<i>B. undulatus</i>	18.00	194.1 (66.8-557.5)	12.1 (3.3-58.1)
<i>B. undulatus</i>	19.00	230.6 (79.5-669.9)	12.3 (3.2-59.1)

<i>B. undulatus</i>	20.00	270.3 (91.3-860.1)	11.7 (3.1-59)
<i>B. undulatus</i>	21.00	309.3 (105.3-949.9)	11.8 (2.9-59.7)
<i>B. undulatus</i>	22.00	360.6 (126.6-1042.7)	11.4 (3-59.3)
<i>B. undulatus</i>	23.00	400.2 (137.2-1231)	11.7 (2.8-62.1)
<i>B. undulatus</i>	24.00	477.9 (162.7-1456.8)	11.3 (2.8-57.8)
<i>B. undulatus</i>	25.00	518.2 (174.4-1685.3)	11.3 (2.8-62.3)
<i>E. merra</i>	2.00	0.1 (0.1-0.2)	43.5 (11.2-294.9)
<i>E. merra</i>	3.00	0.3 (0.2-0.5)	30.8 (9.9-188.2)
<i>E. merra</i>	4.00	0.7 (0.4-1.4)	25.8 (8.2-139.2)
<i>E. merra</i>	5.00	1.5 (0.8-2.9)	22.5 (8-109.7)
<i>E. merra</i>	6.00	2.5 (1.3-4.9)	19.7 (7.4-92.9)
<i>E. merra</i>	7.00	4.1 (2.1-7.9)	18.5 (7-76.3)
<i>E. merra</i>	8.00	6.1 (3.1-12.3)	16.9 (6.9-58.7)
<i>E. merra</i>	9.00	8.7 (4.3-17.6)	16.9 (6.4-55.7)
<i>E. merra</i>	10.00	12.1 (5.9-24.3)	15.6 (6.1-48.5)
<i>E. merra</i>	11.00	16.3 (7.9-33.7)	15.4 (6-46.7)
<i>E. merra</i>	12.00	21.6 (10.2-44)	14.6 (5.7-42.7)
<i>E. merra</i>	13.00	27.3 (13.4-57)	14.5 (5.7-42.6)
<i>E. merra</i>	14.00	33.9 (16.4-70.8)	14 (5.7-42.6)
<i>E. merra</i>	15.00	42.4 (19.9-89)	14.1 (5.5-40.1)
<i>E. merra</i>	16.00	51.4 (23.5-111.8)	13.7 (5.2-37.9)
<i>E. merra</i>	17.00	61.7 (29.1-129.5)	13.4 (5.3-38.2)
<i>E. merra</i>	18.00	74 (33.7-161.5)	13.4 (5.2-38.6)
<i>E. merra</i>	19.00	86.5 (40.4-190.8)	13.3 (5.5-37.7)
<i>E. merra</i>	20.00	100.2 (47-231.1)	13.3 (5.1-37.6)
<i>E. merra</i>	21.00	119.2 (53.3-257.1)	12.8 (4.7-35.8)
<i>E. merra</i>	22.00	137.9 (60.2-304.8)	12.8 (4.6-37.5)
<i>E. merra</i>	23.00	156 (72.1-359.6)	13 (4.7-35.8)
<i>E. merra</i>	24.00	179.6 (80.5-396.9)	12.8 (4.6-35.9)

<i>E. merra</i>	25.00	200.9 (89.5-454)	13.1 (4.8-35.8)
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