
Experimental
Control
Study
N
Mean
SD
Mean Difference
SMD [95%−CI]

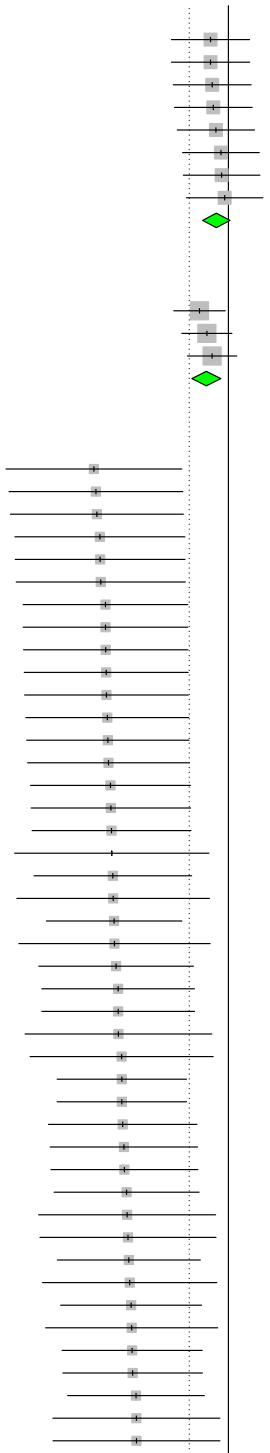
Experimental
Control
Study N Mean SD N Mean SD
Mean Difference
SMD [95%−CI]
Fertiliser
Total (Random Model) −0.52 [−1.35; 0.31]
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.4843
Fungicide
Total (Random Model) −1.03 [−1.45; −0.60]
Heterogeneity: I^2 = 16.4%, τ^2 = < 0.0001, p = 0.3050
Herbicide
Insecticide
Total (Random Model) −1.54 [−1.63; −1.45]
Heterogeneity: I^2 = 24.2%, τ^2 = 0.2609, p < 0.0001
Total (Random Model) −1.42 [−1.50; −1.34]
Heterogeneity: I^2 = 25.9%, τ^2 = 0.2390, p < 0.0001
Test for subgroup differences: χ^2_3 = 57.84, df = 3 (p < 0.0001)
−5
0
5


Experimental
Control
Study N Mean SD N Mean SD
Mean Difference
SMD [95%−CI]
Carbamate
Total (Random Model) −1.15 [−1.50; −0.81]
Heterogeneity: I^2 = 25.4%, τ^2 = 0.0001, p = 0.1358
Chloroacetanilide
Total (Random Model) −0.77 [−1.18; −0.35]
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9952
Chlorothalonil
Jung et al. 2017−10 10 83.33 11.54 10 90.00 10.00 −0.59 [−1.49; 0.30]
Copper sulphate
Total (Random Model) −1.32 [−1.96; −0.69]
Heterogeneity: I^2 = 21.6%, τ^2 = 0.1048, p = 0.2773
Diamide
Total (Random Model) −1.55 [−1.74; −1.36]
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9999
Dicloruro−dimetil−bipiridilo
Total (Random Model) −1.71 [−2.84; −0.59]
Heterogeneity: I^2 = 37.8%, τ^2 = 0.6350, p = 0.1695
dimetilditiocarbamato+Zn
Jung et al. 2017−21 10 90.00 10.00 10 96.66 5.77 −0.78 [−1.69; 0.13]
Diuron
Total (Random Model) −0.67 [−1.25; −0.09]
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.6445
Glyphosate
Total (Random Model) −0.80 [−1.71; 0.11]
Heterogeneity: I^2 = 20.7%, τ^2 = 0.0750, p = 0.2835
Imidazole
Total (Random Model) −0.48 [−0.81; −0.14]
Heterogeneity: I^2 = 20.9%, τ^2 < 0.0001, p = 0.1695
Neonicotinoid
Total (Random Model) −1.83 [−2.21; −1.46]
Heterogeneity: I^2 = 62.4%, τ^2 = 1.8204, p < 0.0001
Nitrate
Total (Random Model) −0.52 [−1.35; 0.31]
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.8375
Organophosphate
Total (Random Model) −1.00 [−1.14; −0.86]
Heterogeneity: I^2 = 0%, τ^2 < 0.0001, p = 0.5000
Pyrethroid
Total (Random Model) −1.98 [−2.13; −1.84]
Heterogeneity: I^2 = 4.9%, τ^2 = 0.1415, p = 0.2850
Triazine
Total (Random Model) −0.97 [−1.35; −0.60]
Heterogeneity: I^2 = 0%, τ^2 < 0.0001, p = 0.6437
Total (Random Model) −1.42 [−1.50; −1.34]
Heterogeneity: I^2 = 25.9%, τ^2 = 0.2390, p < 0.0001
Test for subgroup differences: χ^2_{14} = 162.09, df = 14 (p < 0.0001)
−5
0
5


Experimental
Control
Study
N
Mean
SD
N
Mean
SD
Mean Difference
SMD [95%−CI]
1
Total (Random Model)
Heterogeneity: I^2 = 19.7%, τ^2 = 0.2167, p = 0.0022
−1.50 [−1.62; −1.38]
3
Total (Random Model)
Heterogeneity: I^2 = 26.8%, τ^2 = 0.5673, p = 0.0042
−2.26 [−2.51; −2.02]
2
Total (Random Model)
Heterogeneity: I^2 = 9.4%, τ^2 < 0.0001, p = 0.1309
−1.02 [−1.13; −0.91]
Total (Random Model)
Heterogeneity: I^2 = 25.9%, τ^2 = 0.2390, p < 0.0001
Test for subgroup differences: χ^2_2 = 94.96, df = 2 (p < 0.0001)
−1.42 [−1.50; −1.34]
−5
0
5

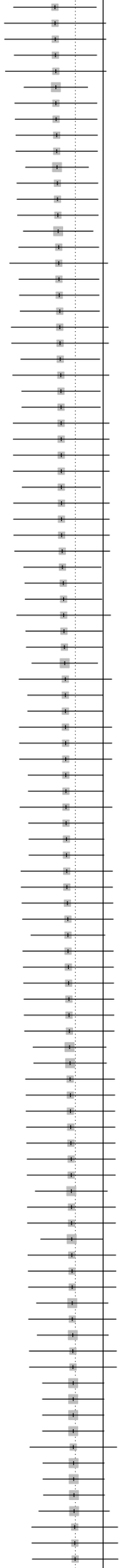
Experimental
Control
Study N Mean SD N Mean SD
Mean Difference
SMD [95%−CI]
Acute test
Jung et al. 2017−4 10 86.66 11.54 10 96.66 5.77 −1.05 [−1.98; −0.11]
Jung et al. 2017−21 10 90.00 10.00 10 96.66 5.77 −0.78 [−1.69; 0.13]
Jung et al. 2017−10 10 83.33 11.54 10 90.00 10.00 −0.59 [−1.49; 0.30]
Total (Random Model) −0.80 [−1.33; −0.27]
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.7852
Mesocosms
Total (Random Model) −1.64 [−1.77; −1.52]
Heterogeneity: I^2 = 32.6%, τ^2 = 0.4430, p < 0.0001
Microcosms
Total (Random Model) −1.22 [−1.32; −1.12]
Heterogeneity: I^2 = 12.3%, τ^2 = 0.0403, p = 0.0466
Total (Random Model) −1.42 [−1.50; −1.34]
Heterogeneity: I^2 = 25.9%, τ^2 = 0.2390, p < 0.0001
Test for subgroup differences: χ^2_2 = 30.45, df = 2 (p < 0.0001)
−5
0
5

Study	Experimental N	Experimental Mean	Experimental SD	Control N	Control Mean	Control SD	SMD [95%−CI]
Anomopoda							
Rumschlag et al. 2020−3	4	0.10	0.10	4	27.15	51.23	−0.65 [−2.07; 0.77]
Rumschlag et al. 2020−33	4	0.10	0.12	4	27.15	51.23	−0.65 [−2.07; 0.77]
Rumschlag et al. 2020−51	4	2.60	3.01	4	27.15	51.23	−0.59 [−2.00; 0.83]
Rumschlag et al. 2020−21	4	4.20	4.34	4	27.15	51.23	−0.55 [−1.96; 0.86]
Rumschlag et al. 2020−9	4	8.00	8.80	4	27.15	51.23	−0.45 [−1.86; 0.95]
Rumschlag et al. 2020−63	4	15.20	17.70	4	27.15	51.23	−0.27 [−1.66; 1.12]
Rumschlag et al. 2020−57	4	16.20	19.00	4	27.15	51.23	−0.25 [−1.64; 1.14]
Rumschlag et al. 2020−27	4	21.00	22.93	4	27.15	51.23	−0.13 [−1.52; 1.25]
Total (Random Model)							**−0.44 [−0.94; 0.06]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9993							
Anostraca							
Jung et al. 2017−4	10	86.66	11.54	10	96.66	5.77	−1.05 [−1.98; −0.11]
Jung et al. 2017−21	10	90.00	10.00	10	96.66	5.77	−0.78 [−1.69; 0.13]
Jung et al. 2017−10	10	83.33	11.54	10	90.00	10.00	−0.59 [−1.49; 0.30]
Total (Random Model)							**−0.80 [−1.33; −0.27]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.7852							
Cladocera							
Chen et al. 2024−143	3	65.30	9.00	3	150.50	17.50	−4.89 [−8.08; −1.69]
Hermann et al. 2025−17	3	17.20	4.80	3	67.20	10.70	−4.81 [−7.97; −1.65]
Hermann et al. 2025−19	3	16.10	4.70	3	64.80	10.50	−4.78 [−7.92; −1.64]
Yao et al. 2024−48	3	0.50	0.20	3	15.00	3.50	−4.67 [−7.75; −1.58]
Chen et al. 2024−142	3	72.90	9.80	3	160.80	18.90	−4.66 [−7.74; −1.58]
Hermann et al. 2025−15	3	19.40	5.30	3	70.30	11.20	−4.64 [−7.71; −1.56]
Hermann et al. 2025−13	3	22.30	5.90	3	74.50	11.80	−4.46 [−7.45; −1.47]
Yao et al. 2024−45	3	2.00	0.60	3	18.00	4.00	−4.46 [−7.45; −1.47]
Hermann et al. 2025−39	3	48.10	9.10	3	123.20	16.70	−4.46 [−7.44; −1.47]
Yao et al. 2024−51	3	0.20	0.05	3	12.00	3.00	−4.44 [−7.42; −1.46]
Chen et al. 2024−141	3	84.70	10.80	3	175.30	20.40	−4.43 [−7.40; −1.46]
Hermann et al. 2025−37	3	50.30	9.40	3	126.70	17.20	−4.40 [−7.36; −1.44]
Groner & Relyea 2011−5	3	16253.00	1945.00	3	29780.00	2894.00	−4.38 [−7.33; −1.43]
Groner & Relyea 2011−11	3	11601.00	1321.00	3	20483.00	1884.00	−4.36 [−7.29; −1.42]
Chen et al. 2024−140	3	96.40	12.00	3	189.20	21.30	−4.28 [−7.19; −1.38]
Hermann et al. 2025−11	3	26.90	6.50	3	80.20	12.50	−4.27 [−7.17; −1.37]
Hermann et al. 2025−35	3	54.20	9.90	3	130.50	17.70	−4.25 [−7.13; −1.36]
Chen et al. 2024−45	2	20.60	5.00	2	79.00	9.80	−4.24 [−7.76; −0.71]
Yao et al. 2024−42	3	3.00	0.80	3	20.00	4.50	−4.20 [−7.06; −1.33]
Chen et al. 2024−40	2	22.70	5.20	2	81.80	10.00	−4.18 [−7.68; −0.68]
Lewis et al. 2021−3	4	16.78	3.28	4	34.48	4.08	−4.15 [−6.61; −1.69]
Chen et al. 2024−35	2	24.60	5.40	2	84.00	10.10	−4.14 [−7.61; −0.66]
Hermann et al. 2025−9	3	32.70	7.40	3	87.40	13.20	−4.08 [−6.89; −1.27]
Hermann et al. 2025−33	3	59.70	10.90	3	135.60	18.40	−4.00 [−6.78; −1.23]
Chen et al. 2024−139	3	105.60	12.70	3	195.40	21.90	−4.00 [−6.78; −1.23]
Chen et al. 2024−30	2	28.00	5.70	2	86.50	10.20	−3.99 [−7.39; −0.60]
Chen et al. 2024−25	2	31.20	5.90	2	89.30	10.40	−3.88 [−7.20; −0.55]
Lewis et al. 2021−9	4	18.95	2.76	4	34.48	4.08	−3.87 [−6.22; −1.52]
Lewis et al. 2021−11	4	18.95	2.76	4	34.48	4.08	−3.87 [−6.22; −1.52]
Hermann et al. 2025−31	3	65.30	11.70	3	141.80	19.20	−3.84 [−6.54; −1.14]
Hermann et al. 2025−7	3	40.30	8.50	3	95.10	13.90	−3.80 [−6.47; −1.12]
Chen et al. 2024−138	3	110.90	13.90	3	200.30	22.80	−3.78 [−6.45; −1.11]
Hermann et al. 2025−29	3	70.90	12.60	3	149.20	20.30	−3.70 [−6.33; −1.06]
Chen et al. 2024−44	2	27.20	5.50	2	79.00	9.80	−3.68 [−6.89; −0.46]
Chen et al. 2024−20	2	35.70	6.10	2	91.20	10.50	−3.65 [−6.84; −0.45]
Chen et al. 2024−137	3	119.70	14.80	3	210.60	24.20	−3.62 [−6.21; −1.02]
Chen et al. 2024−39	2	30.10	5.70	2	81.80	10.00	−3.58 [−6.75; −0.42]
Andrade et al. 2021−4	3	0.40	0.10	3	1.10	0.20	−3.53 [−6.09; −0.97]
Chen et al. 2024−34	2	32.50	5.90	2	84.00	10.10	−3.51 [−6.64; −0.39]
Hermann et al. 2025−5	3	51.10	9.70	3	108.30	15.70	−3.50 [−6.04; −0.95]
Chen et al. 2024−136	3	128.50	15.30	3	220.40	25.60	−3.48 [−6.01; −0.94]
Yao et al. 2024−47	3	4.00	1.20	3	15.00	3.50	−3.35 [−5.84; −0.87]
Chen et al. 2024−29	2	36.50	6.20	2	86.50	10.20	−3.34 [−6.38; −0.31]
Chen et al. 2024−24	2	38.20	6.40	2	89.30	10.40	−3.34 [−6.37; −0.31]

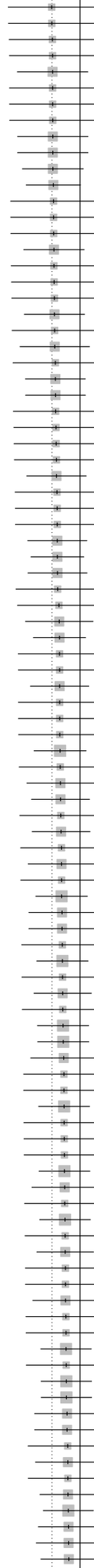


Yao et al. 2024−50	3	3.00	0.80	3	12.00	3.00	−3.27 [−5.72; −0.82]
Hermann et al. 2025−27	3	83.40	14.20	3	158.50	21.70	−3.27 [−5.71; −0.82]
Andrade et al. 2021−2	3	0.80	0.10	3	1.20	0.10	−3.19 [−5.60; −0.78]
Hermann et al. 2025−3	3	64.90	10.90	3	120.50	16.40	−3.19 [−5.60; −0.78]
Rumschlag et al. 2020−26	4	11.70	3.07	4	39.80	10.51	−3.15 [−5.23; −1.08]
Hermann et al. 2025−1	3	85.20	12.40	3	145.70	18.30	−3.09 [−5.46; −0.72]
Chen et al. 2024−15	2	47.30	6.30	2	95.60	10.80	−3.08 [−5.98; −0.18]
Leboulanger et al. 2011−10	3	0.05	0.74	3	2.06	0.05	−3.06 [−5.41; −0.70]
Hermann et al. 2025−25	3	94.10	15.70	3	170.10	23.40	−3.04 [−5.39; −0.69]
Chen et al. 2024−19	2	44.20	6.50	2	91.20	10.50	−3.04 [−5.91; −0.16]
Chen et al. 2024−43	2	36.30	6.00	2	79.00	9.80	−2.96 [−5.80; −0.13]
Bjergager et al. 2011−51	3	116.70	45.10	3	25410.20	9834.80	−2.90 [−5.19; −0.61]
Bjergager et al. 2011−52	3	151.60	58.70	3	24417.80	9440.70	−2.90 [−5.19; −0.61]
Bjergager et al. 2011−19	3	162.30	63.90	3	27634.00	10698.40	−2.90 [−5.19; −0.61]
Bjergager et al. 2011−20	3	186.30	73.70	3	26573.60	10289.90	−2.89 [−5.18; −0.60]
Bjergager et al. 2011−53	3	213.70	82.70	3	23408.40	9044.90	−2.89 [−5.18; −0.60]
Bjergager et al. 2011−114	3	5.90	2.30	3	815.00	315.60	−2.89 [−5.18; −0.60]
Bjergager et al. 2011−116	3	2.30	0.90	3	692.10	269.30	−2.89 [−5.18; −0.60]
Bjergager et al. 2011−50	3	231.90	89.70	3	26438.50	10233.30	−2.89 [−5.18; −0.60]
Bjergager et al. 2011−117	3	3.20	1.20	3	629.40	244.70	−2.89 [−5.17; −0.60]
Bjergager et al. 2011−21	3	263.60	104.40	3	25412.90	9835.20	−2.89 [−5.17; −0.60]
Bjergager et al. 2011−18	3	316.30	123.80	3	28871.30	11167.20	−2.89 [−5.17; −0.60]
Bjergager et al. 2011−115	3	2.10	0.80	3	751.30	293.60	−2.88 [−5.16; −0.60]
Bjergager et al. 2011−12	3	476.30	186.30	3	26573.60	10289.90	−2.86 [−5.14; −0.58]
Bjergager et al. 2011−43	3	489.40	189.60	3	25410.20	9834.80	−2.86 [−5.13; −0.58]
Bjergager et al. 2011−44	3	503.60	194.90	3	24417.80	9440.70	−2.86 [−5.13; −0.58]
Chen et al. 2024−38	2	39.50	6.30	2	81.80	10.00	−2.86 [−5.64; −0.07]
Gutierrez et al. 2020−1	5	0.50	0.10	5	1.00	0.20	−2.85 [−4.62; −1.09]
Bjergager et al. 2011−11	3	566.40	222.90	3	27634.00	10698.40	−2.85 [−5.13; −0.58]
Hermann et al. 2025−21	3	120.50	19.40	3	205.60	27.50	−2.85 [−5.13; −0.58]
Bjergager et al. 2011−118	3	10.20	3.90	3	567.20	220.40	−2.85 [−5.12; −0.58]
Bjergager et al. 2011−54	3	550.50	213.10	3	22287.30	8607.00	−2.85 [−5.12; −0.58]
Bjergager et al. 2011−35	3	651.40	252.30	3	25410.20	9834.80	−2.84 [−5.11; −0.57]
Bjergager et al. 2011−107	3	13.80	5.30	3	751.30	293.60	−2.83 [−5.10; −0.57]
Bjergager et al. 2011−13	3	707.20	276.30	3	25412.90	9835.20	−2.83 [−5.10; −0.57]
Bjergager et al. 2011−22	3	682.40	270.60	3	24320.40	9412.10	−2.83 [−5.10; −0.57]
Bjergager et al. 2011−108	3	15.90	6.10	3	692.10	269.30	−2.83 [−5.10; −0.57]
Bjergager et al. 2011−4	3	750.60	290.80	3	26573.60	10289.90	−2.83 [−5.09; −0.57]
Yao et al. 2024−44	3	7.00	1.80	3	18.00	4.00	−2.83 [−5.09; −0.57]
Bjergager et al. 2011−10	3	932.50	363.40	3	28871.30	11167.20	−2.82 [−5.08; −0.56]
Bjergager et al. 2011−106	3	25.60	9.90	3	815.00	315.60	−2.82 [−5.08; −0.56]
Bjergager et al. 2011−45	3	795.20	307.90	3	23408.40	9044.90	−2.82 [−5.08; −0.56]
Bjergager et al. 2011−42	3	883.10	341.90	3	26438.50	10233.30	−2.82 [−5.07; −0.56]
Bjergager et al. 2011−36	3	874.50	338.50	3	24417.80	9440.70	−2.81 [−5.07; −0.56]
Bjergager et al. 2011−99	3	19.60	7.50	3	751.30	293.60	−2.81 [−5.07; −0.55]
Bjergager et al. 2011−3	3	1071.50	415.00	3	27634.00	10698.40	−2.80 [−5.05; −0.55]
Bjergager et al. 2011−109	3	22.10	8.50	3	629.40	244.70	−2.80 [−5.05; −0.55]
Bjergager et al. 2011−34	3	1086.30	420.20	3	26438.50	10233.30	−2.79 [−5.04; −0.54]
Bjergager et al. 2011−5	3	1122.30	435.60	3	25412.90	9835.20	−2.78 [−5.03; −0.54]
Bjergager et al. 2011−100	3	30.40	11.50	3	692.10	269.30	−2.77 [−5.01; −0.53]
Bjergager et al. 2011−2	3	1475.60	571.10	3	28871.30	11167.20	−2.76 [−5.00; −0.53]
Bjergager et al. 2011−98	3	41.10	15.90	3	815.00	315.60	−2.76 [−5.00; −0.53]
Bjergager et al. 2011−14	3	1247.30	486.50	3	24320.40	9412.10	−2.76 [−5.00; −0.53]
Bjergager et al. 2011−55	3	1157.60	448.00	3	21094.10	8143.40	−2.76 [−4.99; −0.52]
Bjergager et al. 2011−59	3	1336.20	517.10	3	25410.20	9834.80	−2.76 [−4.99; −0.52]
Hermann et al. 2025−23	3	110.20	17.30	3	184.30	24.90	−2.76 [−4.99; −0.52]
Chen et al. 2024−33	2	42.80	6.40	2	84.00	10.10	−2.75 [−5.48; −0.02]
Bjergager et al. 2011−46	3	1341.80	519.50	3	22287.30	8607.00	−2.74 [−4.97; −0.51]
Bjergager et al. 2011−23	3	1442.50	571.60	3	23158.80	8966.00	−2.73 [−4.95; −0.50]
Bjergager et al. 2011−37	3	1513.20	585.80	3	23408.40	9044.90	−2.73 [−4.95; −0.50]
Bjergager et al. 2011−110	3	40.30	15.60	3	567.20	220.40	−2.69 [−4.90; −0.48]
Bjergager et al. 2011−60	3	1847.00	714.10	3	24417.80	9440.70	−2.69 [−4.90; −0.48]
Bjergager et al. 2011−113	3	65.90	25.50	3	870.20	337.00	−2.69 [−4.89; −0.48]
Bjergager et al. 2011−119	3	37.50	14.30	3	498.50	193.70	−2.68 [−4.88; −0.47]
Bjergager et al. 2011−58	3	2084.50	806.80	3	26438.50	10233.30	−2.68 [−4.88; −0.47]
Bjergager et al. 2011−56	3	1784.20	690.80	3	20142.60	7775.20	−2.65 [−4.85; −0.46]
Bjergager et al. 2011−101	3	53.20	20.20	3	629.40	244.70	−2.65 [−4.84; −0.46]
Bjergager et al. 2011−15	3	2055.10	797.40	3	23158.80	8966.00	−2.65 [−4.84; −0.45]
Bjergager et al. 2011−61	3	2356.10	912.20	3	23408.40	9044.90	−2.61 [−4.79; −0.43]
Bjergager et al. 2011−24	3	2202.60	864.20	3	22124.20	8566.90	−2.61 [−4.79; −0.43]
Bjergager et al. 2011−47	3	2205.50	853.60	3	21094.10	8143.40	−2.60 [−4.78; −0.43]
Bjergager et al. 2011−17	3	3195.40	1246.20	3	30042.80	11612.50	−2.59 [−4.77; −0.42]
Chen et al. 2024−90	2	27.40	2.80	2	41.10	3.20	−2.57 [−5.22; 0.08]
Gutierrez et al. 2020−5	5	0.90	0.20	5	1.80	0.40	−2.57 [−4.24; −0.89]
Rumschlag et al. 2020−43	4	0.20	0.19	4	79.10	37.87	−2.56 [−4.43; −0.69]
Bjergager et al. 2011−49	3	3218.00	1245.60	3	27150.60	10511.20	−2.55 [−4.71; −0.40]
Rumschlag et al. 2020−31	4	0.50	0.53	4	79.10	37.87	−2.55 [−4.42; −0.68]
Chen et al. 2024−65	2	33.00	3.10	2	47.70	3.40	−2.55 [−5.19; 0.09]
Chen et al. 2024−70	2	34.20	3.10	2	48.90	3.40	−2.55 [−5.19; 0.09]
Bjergager et al. 2011−6	3	3005.80	1163.10	3	24320.40	9412.10	−2.54 [−4.69; −0.39]
Chen et al. 2024−14	2	54.90	6.90	2	95.60	10.80	−2.53 [−5.17; 0.10]
Rumschlag et al. 2020−37	4	1.10	1.72	4	79.10	37.87	−2.53 [−4.39; −0.67]
Chen et al. 2024−28	2	47.70	6.80	2	86.50	10.20	−2.53 [−5.15; 0.10]
Yao et al. 2024−41	3	9.00	2.00	3	20.00	4.50	−2.52 [−4.66; −0.38]
Bjergager et al. 2011−16	3	2838.20	1100.90	3	22124.20	8566.90	−2.52 [−4.66; −0.38]
Rumschlag et al. 2020−1	4	1.50	1.64	4	79.10	37.87	−2.52 [−4.37; −0.66]
Chen et al. 2024−85	2	28.90	2.90	2	42.50	3.20	−2.51 [−5.13; 0.11]
Chen et al. 2024−55	2	28.50	2.90	2	42.20	3.30	−2.49 [−5.10; 0.12]

Bjergager et al. 2011−48	3	2952.10	1143.40	3	20142.60	7775.20	−2.47 [−4.59; −0.34]
Chen et al. 2024−60	2	32.30	3.10	2	46.50	3.40	−2.46 [−5.06; 0.14]
Chen et al. 2024−80	2	30.50	3.00	2	44.20	3.30	−2.45 [−5.04; 0.14]
Bjergager et al. 2011−62	3	3428.70	1327.90	3	22287.30	8607.00	−2.44 [−4.56; −0.33]
Chen et al. 2024−23	2	51.20	7.00	2	89.30	10.40	−2.42 [−5.01; 0.16]
Gutierrez et al. 2020−7	5	0.60	0.10	5	1.20	0.30	−2.42 [−4.05; −0.79]
Bjergager et al. 2011−38	3	3580.40	1385.60	3	22287.30	8607.00	−2.42 [−4.53; −0.31]
Bjergager et al. 2011−120	3	69.40	26.40	3	430.90	167.30	−2.41 [−4.51; −0.31]
Bjergager et al. 2011−83	3	621.10	244.80	3	3605.90	1393.40	−2.38 [−4.47; −0.29]
Bjergager et al. 2011−111	3	84.20	32.60	3	498.50	193.70	−2.38 [−4.47; −0.29]
del Arco et al. 2023−32	5	0.21	0.37	5	17.70	9.45	−2.36 [−3.98; −0.75]
Bjergager et al. 2011−102	3	102.60	39.00	3	567.20	220.40	−2.34 [−4.42; −0.26]
Bjergager et al. 2011−84	3	643.30	253.70	3	3461.20	1336.40	−2.34 [−4.41; −0.26]
Bjergager et al. 2011−105	3	165.30	64.00	3	870.20	337.00	−2.32 [−4.39; −0.25]
Rumschlag et al. 2020−62	4	11.50	10.84	4	39.80	10.51	−2.30 [−4.09; −0.52]
Bjergager et al. 2011−82	3	761.00	299.70	3	3731.50	1442.30	−2.28 [−4.33; −0.22]
Chen et al. 2024−75	2	32.70	3.10	2	45.60	3.30	−2.27 [−4.79; 0.24]
Bjergager et al. 2011−9	3	6262.20	2417.20	3	30042.80	11612.50	−2.26 [−4.31; −0.21]
Bjergager et al. 2011−7	3	4904.80	1897.10	3	23158.80	8966.00	−2.25 [−4.29; −0.20]
Bjergager et al. 2011−41	3	5981.60	2314.90	3	27150.60	10511.20	−2.22 [−4.25; −0.19]
Chen et al. 2024−84	2	30.30	3.00	2	42.50	3.20	−2.22 [−4.71; 0.27]
Chen et al. 2024−110	2	23.20	2.50	2	34.00	3.00	−2.21 [−4.69; 0.28]
Bjergager et al. 2011−75	3	821.10	323.40	3	3605.90	1393.40	−2.20 [−4.22; −0.17]
Chen et al. 2024−64	2	35.20	3.10	2	47.70	3.40	−2.17 [−4.64; 0.30]
Bjergager et al. 2011−63	3	5060.00	1960.20	3	21094.10	8143.40	−2.16 [−4.17; −0.15]
Bjergager et al. 2011−76	3	833.30	328.00	3	3461.20	1336.40	−2.15 [−4.17; −0.14]
Chen et al. 2024−42	2	47.30	6.50	2	79.00	9.80	−2.15 [−4.61; 0.31]
Chen et al. 2024−79	2	32.20	3.00	2	44.20	3.30	−2.15 [−4.61; 0.31]
Chen et al. 2024−89	2	29.50	2.90	2	41.10	3.20	−2.14 [−4.60; 0.32]
Chen et al. 2024−18	2	56.70	7.40	2	91.20	10.50	−2.14 [−4.60; 0.32]
Bjergager et al. 2011−39	3	5175.10	2001.70	3	21094.10	8143.40	−2.14 [−4.15; −0.13]
Chen et al. 2024−59	2	34.00	3.20	2	46.50	3.40	−2.14 [−4.59; 0.32]
Chen et al. 2024−69	2	36.40	3.20	2	48.90	3.40	−2.14 [−4.59; 0.32]
Chen et al. 2024−54	2	30.30	3.00	2	42.20	3.30	−2.13 [−4.58; 0.32]
Chen et al. 2024−50	2	22.80	2.70	2	33.40	3.00	−2.10 [−4.53; 0.34]
Bjergager et al. 2011−85	3	865.30	340.10	3	3310.00	1279.00	−2.08 [−4.07; −0.10]
Bjergager et al. 2011−74	3	1024.30	403.60	3	3731.50	1442.30	−2.04 [−4.01; −0.07]
Bjergager et al. 2011−8	3	6151.20	2378.70	3	22124.20	8566.90	−2.03 [−4.00; −0.06]
Chen et al. 2024−37	2	51.00	6.90	2	81.80	10.00	−2.02 [−4.43; 0.39]
Bjergager et al. 2011−1	3	8574.20	3317.20	3	30042.80	11612.50	−2.01 [−3.97; −0.04]
Bjergager et al. 2011−112	3	124.70	48.30	3	430.90	167.30	−1.98 [−3.94; −0.03]
Geyer et al. 2016−1	4	0.13	0.06	4	0.73	0.37	−1.97 [−3.65; −0.28]
Chen et al. 2024−32	2	54.20	7.00	2	84.00	10.10	−1.93 [−4.31; 0.44]
Bjergager et al. 2011−64	3	6203.50	2400.70	3	20142.60	7775.20	−1.93 [−3.87; 0.01]
Bjergager et al. 2011−67	3	1111.90	430.20	3	3605.90	1393.40	−1.93 [−3.87; 0.01]
Chen et al. 2024−81	2	31.90	3.00	2	42.50	3.20	−1.93 [−4.30; 0.44]
Chen et al. 2024−115	2	22.70	2.50	2	32.10	3.00	−1.92 [−4.29; 0.45]
Chen et al. 2024−105	2	22.80	2.50	2	32.00	2.90	−1.92 [−4.28; 0.45]
Bjergager et al. 2011−97	3	271.60	105.20	3	870.20	337.00	−1.91 [−3.85; 0.02]
Bjergager et al. 2011−68	3	1093.70	423.50	3	3461.20	1336.40	−1.91 [−3.84; 0.02]
Chen et al. 2024−86	2	30.80	2.90	2	41.10	3.20	−1.90 [−4.27; 0.46]
Bjergager et al. 2011−40	3	6417.90	2483.70	3	20142.60	7775.20	−1.90 [−3.82; 0.03]
Bjergager et al. 2011−103	3	160.10	60.90	3	498.50	193.70	−1.88 [−3.80; 0.04]
Bjergager et al. 2011−77	3	1066.70	420.10	3	3310.00	1279.00	−1.88 [−3.80; 0.04]
Chen et al. 2024−120	2	21.10	2.40	2	29.90	2.90	−1.87 [−4.21; 0.48]
Chen et al. 2024−74	2	34.90	3.20	2	45.60	3.30	−1.86 [−4.20; 0.49]
Chen et al. 2024−56	2	35.80	3.20	2	46.50	3.40	−1.83 [−4.16; 0.51]
Chen et al. 2024−13	2	65.70	7.60	2	95.60	10.80	−1.81 [−4.13; 0.52]
Bjergager et al. 2011−33	3	9382.10	3633.00	3	27150.60	10511.20	−1.80 [−3.70; 0.09]
Chen et al. 2024−76	2	34.00	3.10	2	44.20	3.30	−1.80 [−4.12; 0.52]
Chen et al. 2024−51	2	32.10	3.10	2	42.20	3.30	−1.78 [−4.10; 0.54]
Chen et al. 2024−66	2	38.40	3.30	2	48.90	3.40	−1.77 [−4.08; 0.54]
Chen et al. 2024−135	2	16.10	2.00	2	23.30	2.60	−1.75 [−4.06; 0.55]
Chen et al. 2024−87	2	31.50	3.00	2	41.10	3.20	−1.75 [−4.05; 0.56]
Chen et al. 2024−27	2	59.20	7.40	2	86.50	10.20	−1.73 [−4.03; 0.57]
Bjergager et al. 2011−66	3	1387.40	537.00	3	3731.50	1442.30	−1.72 [−3.59; 0.15]
Bjergager et al. 2011−57	3	10293.30	3989.10	3	27150.60	10511.20	−1.69 [−3.56; 0.17]
Chen et al. 2024−82	2	33.20	3.00	2	42.50	3.20	−1.69 [−3.98; 0.59]
Chen et al. 2024−57	2	36.70	3.20	2	46.50	3.40	−1.67 [−3.95; 0.60]
Chen et al. 2024−130	2	17.90	2.20	2	25.20	2.70	−1.67 [−3.95; 0.60]
Chen et al. 2024−109	2	25.60	2.70	2	34.00	3.00	−1.66 [−3.93; 0.61]
Chen et al. 2024−61	2	37.90	3.30	2	47.70	3.40	−1.65 [−3.92; 0.62]
Chen et al. 2024−22	2	62.80	7.70	2	89.30	10.40	−1.63 [−3.90; 0.63]
Chen et al. 2024−49	2	25.00	2.80	2	33.40	3.00	−1.63 [−3.90; 0.63]
Shadiqur et al. 2020−105	3	0.33	0.58	3	2.00	1.00	−1.63 [−3.48; 0.22]
Chen et al. 2024−125	2	20.10	2.40	2	27.60	2.80	−1.62 [−3.88; 0.64]
Chen et al. 2024−100	2	19.50	2.30	2	26.70	2.70	−1.62 [−3.88; 0.64]
Rumschlag et al. 2020−49	4	23.60	19.03	4	79.10	37.87	−1.61 [−3.20; −0.01]
Chen et al. 2024−77	2	35.10	3.10	2	44.20	3.30	−1.60 [−3.86; 0.65]
Chen et al. 2024−10	2	68.60	7.90	2	95.60	11.00	−1.59 [−3.84; 0.66]
Chen et al. 2024−67	2	39.50	3.30	2	48.90	3.40	−1.58 [−3.83; 0.66]
Bjergager et al. 2011−86	3	1300.50	510.50	3	3152.70	1219.20	−1.58 [−3.41; 0.25]
Chen et al. 2024−41	2	55.30	6.90	2	79.00	9.80	−1.58 [−3.82; 0.67]
Bjergager et al. 2011−69	3	1398.30	541.40	3	3310.00	1279.00	−1.55 [−3.38; 0.27]
Chen et al. 2024−52	2	33.40	3.10	2	42.20	3.30	−1.55 [−3.79; 0.68]
Chen et al. 2024−71	2	36.70	3.20	2	45.60	3.30	−1.54 [−3.78; 0.69]
Rumschlag et al. 2020−4	4	0.10	0.20	4	398.45	319.31	−1.53 [−3.11; 0.04]
Rumschlag et al. 2020−34	4	0.30	0.38	4	398.45	319.31	−1.53 [−3.11; 0.04]
Rumschlag et al. 2020−70	4	0.40	0.50	4	398.45	319.31	−1.53 [−3.11; 0.04]
Rumschlag et al. 2020−46	4	0.70	1.15	4	398.45	319.31	−1.53 [−3.11; 0.05]
Chen et al. 2024−88	2	32.70	3.00	2	41.10	3.20	−1.53 [−3.76; 0.70]
Rumschlag et al. 2020−40	4	4.60	9.07	4	398.45	319.31	−1.51 [−3.09; 0.06]
Rumschlag et al. 2020−22	4	5.90	3.80	4	398.45	319.31	−1.51 [−3.08; 0.06]
Smith et al. 2018−10	4	1.30	2.50	4	254.80	208.50	−1.49 [−3.06; 0.07]
Bjergager et al. 2011−104	3	190.80	72.30	3	430.90	167.30	−1.49 [−3.29; 0.32]
Chen et al. 2024−104	2	24.90	2.60	2	32.00	2.90	−1.45 [−3.66; 0.75]
Chen et al. 2024−62	2	39.10	3.30	2	47.70	3.40	−1.45 [−3.65; 0.75]
Chen et al. 2024−83	2	34.50	3.10	2	42.50	3.20	−1.43 [−3.63; 0.76]



Chen et al. 2024−58	2	38.00	3.30	2	46.50	3.40	−1.43 [−3.63; 0.77]
Chen et al. 2024−36	2	59.70	7.30	2	81.80	10.00	−1.42 [−3.62; 0.77]
Chen et al. 2024−17	2	68.10	8.00	2	91.20	10.50	−1.40 [−3.58; 0.79]
Chen et al. 2024−95	2	15.10	2.00	2	20.40	2.30	−1.39 [−3.57; 0.80]
Bjergager et al. 2011−81	3	1831.10	721.40	3	3873.40	1498.10	−1.39 [−3.17; 0.40]
Chen et al. 2024−134	2	17.50	2.10	2	23.30	2.60	−1.38 [−3.57; 0.80]
Chen et al. 2024−114	2	25.10	2.70	2	32.10	3.00	−1.38 [−3.57; 0.80]
Chen et al. 2024−9	2	72.10	8.20	2	95.80	11.00	−1.38 [−3.56; 0.80]
Shadiqur et al. 2020−109	3	0.33	0.58	3	1.33	0.58	−1.38 [−3.16; 0.40]
Shadiqur et al. 2020−107	3	0.67	0.58	3	1.67	0.58	−1.38 [−3.16; 0.40]
Rumschlag et al. 2020−55	4	32.80	16.80	4	79.10	37.87	−1.37 [−2.91; 0.17]
del Arco et al. 2023−64	5	1.80	2.79	5	15.10	12.30	−1.35 [−2.72; 0.03]
Chen et al. 2024−46	2	26.40	2.90	2	33.40	3.00	−1.34 [−3.51; 0.83]
Chen et al. 2024−78	2	36.50	3.20	2	44.20	3.30	−1.34 [−3.50; 0.83]
Chen et al. 2024−119	2	23.40	2.60	2	29.90	2.90	−1.33 [−3.50; 0.83]
Rumschlag et al. 2020−56	4	23.90	10.46	4	39.80	10.51	−1.32 [−2.85; 0.21]
Chen et al. 2024−72	2	37.90	3.30	2	45.60	3.30	−1.32 [−3.48; 0.85]
Chen et al. 2024−31	2	63.40	7.50	2	84.00	10.10	−1.31 [−3.47; 0.85]
Chen et al. 2024−68	2	41.10	3.40	2	48.90	3.40	−1.29 [−3.45; 0.86]
Rumschlag et al. 2020−28	4	59.80	42.51	4	398.45	319.31	−1.29 [−2.81; 0.23]
Chen et al. 2024−129	2	19.50	2.30	2	25.20	2.70	−1.28 [−3.43; 0.87]
Bjergager et al. 2011−78	3	1600.20	630.20	3	3152.70	1219.20	−1.28 [−3.03; 0.48]
Chen et al. 2024−63	2	40.30	3.30	2	47.70	3.40	−1.25 [−3.39; 0.90]
Rumschlag et al. 2020−64	4	71.50	45.90	4	398.45	319.31	−1.25 [−2.76; 0.27]
Stoler et al. 2017−2	4	14.50	13.00	4	34.25	14.66	−1.24 [−2.75; 0.27]
Chen et al. 2024−124	2	21.80	2.50	2	27.60	2.80	−1.23 [−3.37; 0.91]
Chen et al. 2024−73	2	38.50	3.30	2	45.60	3.30	−1.21 [−3.35; 0.92]
Chen et al. 2024−47	2	27.10	2.90	2	33.40	3.00	−1.20 [−3.34; 0.93]
Chen et al. 2024−99	2	21.30	2.40	2	26.70	2.70	−1.19 [−3.32; 0.93]
Rumschlag et al. 2020−58	4	85.30	49.80	4	398.45	319.31	−1.19 [−2.69; 0.31]
Chen et al. 2024−53	2	35.50	3.20	2	42.20	3.30	−1.16 [−3.28; 0.96]
Chen et al. 2024−12	2	75.90	8.30	2	95.60	10.80	−1.15 [−3.27; 0.96]
Chen et al. 2024−26	2	67.90	7.90	2	86.50	10.20	−1.15 [−3.27; 0.97]
Rumschlag et al. 2020−25	4	38.80	20.66	4	79.10	37.87	−1.15 [−2.64; 0.35]
del Arco et al. 2023−67	5	0.33	0.74	5	20.00	21.94	−1.14 [−2.48; 0.19]
Stoler et al. 2017−1	4	12.75	8.73	4	36.75	24.39	−1.14 [−2.63; 0.36]
Chen et al. 2024−106	2	28.10	2.90	2	34.00	3.00	−1.13 [−3.24; 0.98]
Chen et al. 2024−121	2	22.50	2.60	2	27.60	2.80	−1.06 [−3.16; 1.03]
Bjergager et al. 2011−73	3	2252.10	892.70	3	3873.40	1498.10	−1.05 [−2.76; 0.66]
del Arco et al. 2023−42	5	0.09	0.13	5	21.33	26.15	−1.04 [−2.36; 0.28]
Chen et al. 2024−21	2	72.10	8.20	2	89.30	10.40	−1.04 [−3.12; 1.05]
Chen et al. 2024−131	2	18.90	2.20	2	23.30	2.60	−1.03 [−3.12; 1.06]
Rumschlag et al. 2020−19	4	30.90	43.20	4	79.10	37.87	−1.03 [−2.51; 0.44]
Chen et al. 2024−101	2	26.80	2.80	2	32.00	2.90	−1.03 [−3.11; 1.06]
Chen et al. 2024−116	2	24.80	2.70	2	29.90	2.90	−1.03 [−3.11; 1.06]
Chen et al. 2024−8	2	77.90	8.60	2	95.80	11.00	−1.02 [−3.11; 1.06]
del Arco et al. 2023−41	5	0.29	0.26	5	13.80	17.13	−1.01 [−2.32; 0.31]
Chen et al. 2024−94	2	16.50	2.10	2	20.40	2.30	−1.00 [−3.08; 1.08]
Yao et al. 2024−40	3	15.00	3.50	3	20.00	4.50	−0.99 [−2.69; 0.71]
Rumschlag et al. 2020−52	4	134.10	81.70	4	398.45	319.31	−0.99 [−2.45; 0.48]
Chen et al. 2024−126	2	20.80	2.40	2	25.20	2.70	−0.97 [−3.04; 1.10]
Rumschlag et al. 2020−50	4	23.10	18.67	4	39.80	10.51	−0.96 [−2.42; 0.51]
Chen et al. 2024−111	2	27.20	2.90	2	32.10	3.00	−0.94 [−3.00; 1.13]
Bjergager et al. 2011−87	3	1851.60	726.80	3	2981.60	1152.10	−0.94 [−2.62; 0.75]
Chen et al. 2024−96	2	22.40	2.50	2	26.70	2.70	−0.93 [−3.00; 1.13]
del Arco et al. 2023−43	5	0.27	0.39	5	41.00	55.83	−0.93 [−2.24; 0.37]
Shadiqur et al. 2020−101	3	1.67	0.58	3	2.33	0.58	−0.91 [−2.59; 0.77]
Shadiqur et al. 2020−131	3	0.67	0.58	3	1.33	0.58	−0.91 [−2.59; 0.77]
Chen et al. 2024−5	2	81.00	8.70	2	96.90	11.20	−0.89 [−2.95; 1.16]
del Arco et al. 2023−33	5	0.07	0.14	5	13.47	19.24	−0.89 [−2.19; 0.41]
Chen et al. 2024−107	2	29.30	3.00	2	34.00	3.00	−0.88 [−2.94; 1.17]
Rumschlag et al. 2020−16	4	135.20	184.85	4	398.45	319.31	−0.88 [−2.33; 0.57]
Chen et al. 2024−117	2	25.50	2.80	2	29.90	2.90	−0.87 [−2.92; 1.18]
del Arco et al. 2023−65	5	0.60	1.34	5	9.34	12.94	−0.86 [−2.15; 0.44]
del Arco et al. 2023−46	5	0.29	0.47	5	41.80	62.55	−0.85 [−2.14; 0.45]
Bjergager et al. 2011−70	3	2082.70	805.90	3	3152.70	1219.20	−0.83 [−2.49; 0.84]
Chen et al. 2024−102	2	27.90	2.80	2	32.00	2.90	−0.81 [−2.85; 1.23]
Chen et al. 2024−16	2	77.40	8.60	2	91.20	10.50	−0.81 [−2.85; 1.23]
del Arco et al. 2023−45	5	0.26	0.40	5	55.67	87.90	−0.80 [−2.09; 0.48]
Chen et al. 2024−91	2	17.20	2.20	2	20.40	2.30	−0.80 [−2.84; 1.24]
Chen et al. 2024−11	2	81.70	8.80	2	95.60	10.80	−0.80 [−2.83; 1.24]
Chen et al. 2024−48	2	29.20	3.00	2	33.40	3.00	−0.79 [−2.82; 1.25]
del Arco et al. 2023−44	5	1.47	1.86	5	259.26	418.21	−0.79 [−2.07; 0.50]
Bjergager et al. 2011−65	3	2631.30	1019.30	3	3873.40	1498.10	−0.77 [−2.43; 0.89]
Chen et al. 2024−122	2	23.90	2.60	2	27.60	2.80	−0.77 [−2.80; 1.26]
del Arco et al. 2023−35	5	0.13	0.24	5	6.01	9.90	−0.76 [−2.04; 0.53]
Chen et al. 2024−108	2	30.00	3.00	2	34.00	3.00	−0.75 [−2.78; 1.28]
Rumschlag et al. 2020−61	4	44.50	42.30	4	79.10	37.87	−0.75 [−2.18; 0.68]
Chen et al. 2024−97	2	23.30	2.50	2	26.70	2.70	−0.74 [−2.76; 1.29]
Chen et al. 2024−132	2	20.10	2.30	2	23.30	2.60	−0.74 [−2.76; 1.29]
Yao et al. 2024−46	3	12.00	3.00	3	15.00	3.50	−0.73 [−2.39; 0.92]
Chen et al. 2024−127	2	21.90	2.50	2	25.20	2.70	−0.72 [−2.74; 1.31]
Chen et al. 2024−112	2	28.40	2.90	2	32.10	3.00	−0.71 [−2.73; 1.31]
del Arco et al. 2023−31	5	3.14	6.30	5	21.67	32.87	−0.71 [−1.98; 0.57]
Chen et al. 2024−4	2	84.30	9.10	2	96.90	11.20	−0.70 [−2.72; 1.32]
del Arco et al. 2023−53	5	0.13	0.30	5	2.63	4.60	−0.69 [−1.97; 0.58]
del Arco et al. 2023−34	5	0.60	1.20	5	21.67	39.05	−0.69 [−1.96; 0.59]
Shadiqur et al. 2020−104	3	1.33	0.58	3	2.00	1.00	−0.65 [−2.30; 0.99]
Shadiqur et al. 2020−106	3	1.00	1.00	3	1.67	0.58	−0.65 [−2.30; 0.99]
Chen et al. 2024−7	2	84.70	9.10	2	95.80	11.00	−0.62 [−2.63; 1.39]
Bjergager et al. 2011−79	3	2197.50	865.30	3	2981.60	1152.10	−0.61 [−2.25; 1.02]
Chen et al. 2024−118	2	26.80	2.80	2	29.90	2.90	−0.61 [−2.62; 1.39]
Chara−Serna et al. 2019−1	4	29.03	13.38	4	62.39	66.07	−0.61 [−2.03; 0.81]
del Arco et al. 2023−62	5	1.13	1.64	5	4.67	7.47	−0.59 [−1.86; 0.68]
Stoler et al. 2017−19	3	0.33	0.58	4	1.00	1.15	−0.58 [−2.11; 0.95]
Yao et al. 2024−49	3	10.00	2.50	3	12.00	3.00	−0.58 [−2.21; 1.06]
Rumschlag et al. 2020−13	4	56.40	31.40	4	79.10	37.87	−0.57 [−1.98; 0.85]



Chen et al. 2024−103	2	29.10	2.90	2	32.00	2.90	−0.56 [−2.56; 1.43]
Chen et al. 2024−92	2	18.10	2.30	2	20.40	2.30	−0.56 [−2.56; 1.43]
Rumschlag et al. 2020−10	4	202.70	297.13	4	398.45	319.31	−0.55 [−1.96; 0.86]
Shadiqur et al. 2020−42	3	0.33	0.47	3	0.67	0.58	−0.51 [−2.14; 1.11]
Shadiqur et al. 2020−51	3	0.33	0.47	3	0.67	0.58	−0.51 [−2.14; 1.11]
Chen et al. 2024−123	2	25.20	2.70	2	27.60	2.80	−0.49 [−2.48; 1.50]
Chen et al. 2024−113	2	29.50	3.00	2	32.10	3.00	−0.49 [−2.48; 1.50]
del Arco et al. 2023−63	5	3.33	6.37	5	9.67	15.43	−0.48 [−1.74; 0.77]
Chen et al. 2024−128	2	23.00	2.50	2	25.20	2.70	−0.48 [−2.46; 1.51]
Chen et al. 2024−133	2	21.20	2.40	2	23.30	2.60	−0.47 [−2.46; 1.51]
Shadiqur et al. 2020−41	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−49	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−50	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−52	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−53	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−124	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−136	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−137	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Rumschlag et al. 2020−14	4	27.50	31.11	4	39.80	10.51	−0.46 [−1.86; 0.94]
Chen et al. 2024−3	2	88.90	9.40	2	96.90	11.20	−0.44 [−2.42; 1.55]
Bjergager et al. 2011−88	3	2302.20	903.60	3	2825.40	1091.10	−0.42 [−2.03; 1.20]
Chen et al. 2024−6	2	88.30	9.50	2	95.80	11.00	−0.41 [−2.39; 1.57]
Yao et al. 2024−43	3	16.00	4.00	3	18.00	4.00	−0.40 [−2.02; 1.22]
Lopez−Valcarcel et al. 2024−2	4	18.00	6.78	4	20.50	3.69	−0.40 [−1.80; 1.00]
Leboulanger et al. 2011−8	3	0.77	3.92	3	2.06	0.15	−0.37 [−1.99; 1.24]
Lopez−Valcarcel et al. 2024−1	4	14.50	3.69	4	16.25	4.57	−0.37 [−1.76; 1.03]
Chen et al. 2024−98	2	25.00	2.60	2	26.70	2.70	−0.36 [−2.34; 1.61]
Chen et al. 2024−93	2	19.00	2.30	2	20.40	2.30	−0.34 [−2.32; 1.63]
Shadiqur et al. 2020−100	3	2.00	1.00	3	2.33	0.58	−0.32 [−1.93; 1.29]
Shadiqur et al. 2020−103	3	1.67	0.58	3	2.00	1.00	−0.32 [−1.93; 1.29]
Chen et al. 2024−2	2	92.20	9.60	2	96.90	11.20	−0.25 [−2.22; 1.71]
Leboulanger et al. 2011−9	3	1.54	2.24	3	2.06	0.91	−0.24 [−1.85; 1.36]
Chara−Serna et al. 2019−2	4	48.92	41.67	4	62.39	66.07	−0.21 [−1.60; 1.18]
Finnegan et al. 2018−33	2	1.50	4.32	4	4.44	12.78	−0.21 [−1.91; 1.49]
Finnegan et al. 2018−32	2	3.33	3.32	4	4.33	4.32	−0.19 [−1.90; 1.51]
Bjergager et al. 2011−71	3	2728.60	1056.50	3	2981.60	1152.10	−0.18 [−1.79; 1.42]
Finnegan et al. 2018−35	2	0.53	1.36	4	1.04	2.66	−0.17 [−1.87; 1.53]
Chen et al. 2024−1	2	94.10	9.90	2	96.90	11.20	−0.15 [−2.11; 1.81]
Bjergager et al. 2011−80	3	2654.40	1045.70	3	2825.40	1091.10	−0.13 [−1.73; 1.47]
Stoler et al. 2017−18	4	1.50	1.29	4	1.75	2.06	−0.13 [−1.51; 1.26]
Finnegan et al. 2018−27	4	1.12	1.36	4	1.28	1.55	−0.10 [−1.48; 1.29]
Finnegan et al. 2018−2	3	3.48	4.19	4	3.80	4.58	−0.06 [−1.56; 1.44]
Bjergager et al. 2011−94	3	3090.70	1197.30	3	3152.70	1219.20	−0.04 [−1.64; 1.56]
Bjergager et al. 2011−93	3	3256.40	1262.40	3	3310.00	1279.00	−0.03 [−1.63; 1.57]
Bjergager et al. 2011−91	3	3550.10	1375.40	3	3605.90	1393.40	−0.03 [−1.63; 1.57]
Bjergager et al. 2011−92	3	3423.00	1325.60	3	3461.20	1336.40	−0.02 [−1.62; 1.58]
Bjergager et al. 2011−95	3	2951.10	1142.30	3	2981.60	1152.10	−0.02 [−1.62; 1.58]
Bjergager et al. 2011−90	3	3701.40	1430.30	3	3731.50	1442.30	−0.02 [−1.62; 1.58]
Finnegan et al. 2018−34	2	1.25	1.51	4	1.28	1.55	−0.02 [−1.71; 1.68]
Bjergager et al. 2011−96	3	2812.30	1089.50	3	2825.40	1091.10	−0.01 [−1.61; 1.59]
Shadiqur et al. 2020−40	3	0.67	0.58	3	0.67	0.58	0.00 [−1.60; 1.60]
Shadiqur et al. 2020−102	3	2.33	0.58	3	2.33	0.58	0.00 [−1.60; 1.60]
Shadiqur et al. 2020−132	3	1.33	0.58	3	1.33	0.58	0.00 [−1.60; 1.60]
Finnegan et al. 2018−12	3	4.55	13.10	4	4.44	12.78	0.01 [−1.49; 1.50]
Bjergager et al. 2011−89	3	3898.20	1507.70	3	3873.40	1498.10	0.01 [−1.59; 1.61]
Bjergager et al. 2011−25	3	30591.80	11782.70	3	30042.80	11612.50	0.04 [−1.56; 1.64]
Leboulanger et al. 2011−7	3	2.27	4.17	3	2.06	0.31	0.06 [−1.54; 1.66]
Bjergager et al. 2011−26	3	30113.20	11603.60	3	28871.30	11167.20	0.09 [−1.51; 1.69]
Groner & Relyea 2011−2	3	30223.00	3047.00	3	29780.00	2894.00	0.12 [−1.48; 1.72]
Total (Random Model)							**−1.54 [−1.65; −1.43]**

Heterogeneity: I^2 = 14%, τ^2 = 0.1454, p = 0.0147

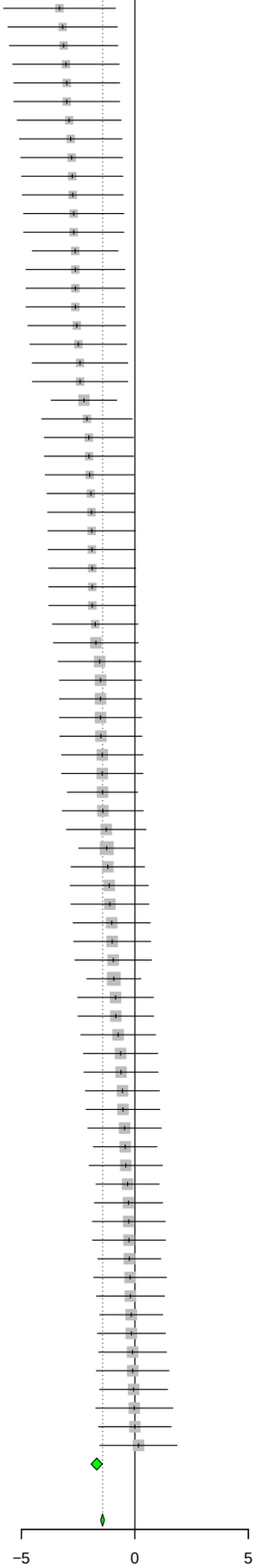
Copepoda

Lewis et al. 2021−75	4	10.22	2.07	4	21.39	2.58	−4.15 [−6.61; −1.69]
Lewis et al. 2021−79	4	10.22	2.07	4	21.39	2.58	−4.15 [−6.61; −1.69]
Lewis et al. 2021−91	4	9.00	1.84	4	18.95	2.30	−4.15 [−6.61; −1.69]
Lewis et al. 2021−25	4	13.13	2.60	4	27.18	3.24	−4.15 [−6.61; −1.69]
Lewis et al. 2021−27	4	13.13	2.60	4	27.18	3.24	−4.15 [−6.61; −1.69]
Shadiqur et al. 2020−9	3	1.33	0.47	3	5.67	1.15	−3.94 [−6.69; −1.20]
Lewis et al. 2021−93	4	10.22	1.55	4	18.95	2.30	−3.87 [−6.22; −1.52]
Lewis et al. 2021−33	4	14.85	2.19	4	27.18	3.24	−3.87 [−6.22; −1.52]
Lewis et al. 2021−35	4	14.85	2.19	4	27.18	3.24	−3.87 [−6.22; −1.52]
Lewis et al. 2021−84	4	11.59	1.74	4	21.39	2.58	−3.87 [−6.22; −1.52]
Andrade et al. 2021−10	3	0.50	0.10	3	1.20	0.20	−3.53 [−6.09; −0.97]
Gutierrez et al. 2020−23	5	0.60	0.10	5	1.20	0.20	−3.43 [−5.37; −1.48]
Groner & Relyea 2011−17	3	8342.00	981.00	3	12874.00	1181.00	−3.33 [−5.80; −0.86]
Shadiqur et al. 2020−1	3	5.00	1.00	3	8.33	0.58	−3.25 [−5.69; −0.81]
Andrade et al. 2021−8	3	0.90	0.10	3	1.30	0.10	−3.19 [−5.60; −0.78]
Leboulanger et al. 2011−15	3	22.57	2.24	3	33.05	2.98	−3.17 [−5.58; −0.77]
Lewis et al. 2021−81	4	13.13	1.95	4	21.39	2.58	−3.14 [−5.21; −1.07]
Lewis et al. 2021−95	4	11.59	1.74	4	18.95	2.30	−3.14 [−5.21; −1.07]
Wendt−Rasch et al. 2003−1	3	15.00	2.00	3	25.00	3.00	−3.13 [−5.52; −0.74]
Lewis et al. 2021−85	4	10.22	2.58	4	18.95	2.30	−3.10 [−5.16; −1.05]
Lewis et al. 2021−73	4	11.59	2.90	4	21.39	2.58	−3.10 [−5.16; −1.05]
Bjergager et al. 2011−139	3	11.30	4.40	3	2211.30	856.10	−2.90 [−5.19; −0.61]
Bjergager et al. 2011−140	3	15.40	6.00	3	2027.60	785.10	−2.89 [−5.18; −0.60]
Bjergager et al. 2011−138	3	38.40	14.90	3	2540.80	985.10	−2.87 [−5.14; −0.59]
Bjergager et al. 2011−141	3	32.40	12.60	3	1844.00	713.20	−2.87 [−5.14; −0.59]
Gutierrez et al. 2020−17	5	0.50	0.10	5	1.00	0.20	−2.85 [−4.62; −1.09]
Bjergager et al. 2011−131	3	83.40	32.30	3	2211.30	856.10	−2.80 [−5.06; −0.55]
Bjergager et al. 2011−132	3	97.30	37.70	3	2027.60	785.10	−2.77 [−5.01; −0.53]
Bjergager et al. 2011−142	3	102.30	39.60	3	1631.80	631.30	−2.73 [−4.95; −0.50]
Shadiqur et al. 2020−8	3	2.00	1.00	3	5.67	1.15	−2.72 [−4.94; −0.50]
Gutierrez et al. 2020−21	5	0.70	0.20	5	1.30	0.20	−2.71 [−4.42; −0.99]
Bjergager et al. 2011−130	3	180.90	70.00	3	2540.80	985.10	−2.70 [−4.91; −0.49]
Bjergager et al. 2011−123	3	174.20	67.40	3	2211.30	856.10	−2.68 [−4.88; −0.47]
Bjergager et al. 2011−122	3	233.90	90.50	3	2540.80	985.10	−2.63 [−4.82; −0.45]
Bjergager et al. 2011−133	3	198.60	76.90	3	1844.00	713.20	−2.59 [−4.76; −0.42]
Bjergager et al. 2011−124	3	231.70	89.70	3	2027.60	785.10	−2.56 [−4.72; −0.40]
Gutierrez et al. 2020−19	5	0.70	0.20	5	1.40	0.30	−2.48 [−4.13; −0.83]

Lewis et al. 2021−83	4	14.85	2.19	4	21.39	2.58	−2.37 [−4.18; −0.57]
Bjergager et al. 2011−143	3	258.10	100.00	3	1418.70	549.10	−2.35 [−4.43; −0.27]
Bjergager et al. 2011−125	3	356.90	138.20	3	1844.00	713.20	−2.31 [−4.38; −0.24]
Stoler et al. 2017−15	3	27.00	10.39	4	52.00	8.68	−2.24 [−4.14; −0.33]
Rumschlag et al. 2020−72	4	0.70	0.55	4	47.80	25.93	−2.23 [−4.00; −0.47]
Rumschlag et al. 2020−42	4	1.50	1.35	4	47.80	25.93	−2.19 [−3.94; −0.44]
Rumschlag et al. 2020−6	4	2.60	1.14	4	47.80	25.93	−2.14 [−3.88; −0.40]
Bjergager et al. 2011−134	3	402.70	155.80	3	1631.80	631.30	−2.13 [−4.14; −0.13]
Bjergager et al. 2011−137	3	547.30	211.80	3	2204.20	853.50	−2.13 [−4.13; −0.12]
Groner & Relyea 2011−20	3	27353.00	2669.00	3	34652.00	2957.00	−2.07 [−4.05; −0.09]
Smith et al. 2018−3	4	2.25	2.63	4	731.80	471.10	−1.90 [−3.57; −0.23]
Bjergager et al. 2011−126	3	553.20	214.20	3	1631.80	631.30	−1.83 [−3.73; 0.08]
Rumschlag et al. 2020−48	4	7.90	9.44	4	47.80	25.93	−1.78 [−3.41; −0.14]
Leboulanger et al. 2011−18	3	21.92	7.06	3	33.05	1.34	−1.75 [−3.63; 0.13]
Leboulanger et al. 2011−14	3	25.42	3.92	3	33.05	3.24	−1.69 [−3.56; 0.17]
Shadiqur et al. 2020−16	3	1.33	0.58	3	3.00	1.00	−1.63 [−3.48; 0.22]
Shadiqur et al. 2020−17	3	1.33	0.58	3	3.00	1.00	−1.63 [−3.48; 0.22]
Bjergager et al. 2011−144	3	521.90	202.00	3	1252.30	484.80	−1.57 [−3.40; 0.26]
Bjergager et al. 2011−135	3	647.50	250.70	3	1418.70	549.10	−1.44 [−3.24; 0.35]
Shadiqur et al. 2020−7	3	3.33	1.53	3	5.67	1.15	−1.38 [−3.16; 0.40]
Rumschlag et al. 2020−30	4	18.10	5.53	4	47.80	25.93	−1.38 [−2.92; 0.17]
Shadiqur et al. 2020−21	3	0.67	0.47	3	2.00	1.00	−1.36 [−3.13; 0.42]
Shadiqur et al. 2020−24	3	0.67	0.47	3	2.00	1.00	−1.36 [−3.13; 0.42]
Smith et al. 2018−1	4	219.20	101.30	4	731.80	471.10	−1.31 [−2.83; 0.22]
Shadiqur et al. 2020−23	3	0.67	0.58	3	2.00	1.00	−1.30 [−3.06; 0.46]
Bjergager et al. 2011−129	3	1176.30	455.30	3	2204.20	853.50	−1.20 [−2.94; 0.54]
Rumschlag et al. 2020−54	4	20.20	12.90	4	47.80	25.93	−1.17 [−2.67; 0.33]
Shadiqur et al. 2020−18	3	1.67	0.94	3	3.00	1.00	−1.09 [−2.81; 0.62]
Smith et al. 2018−2	4	228.80	322.10	4	731.80	471.10	−1.08 [−2.57; 0.40]
Bjergager et al. 2011−127	3	829.10	320.80	3	1418.70	549.10	−1.05 [−2.75; 0.66]
Rumschlag et al. 2020−60	4	24.20	11.91	4	47.80	25.93	−1.02 [−2.49; 0.46]
Finnegan et al. 2018−133	4	4.87	2.98	4	10.86	6.65	−1.01 [−2.48; 0.46]
Finnegan et al. 2018−44	3	18.44	7.79	4	32.18	13.60	−0.99 [−2.58; 0.59]
Rumschlag et al. 2020−18	4	21.70	21.14	4	47.80	25.93	−0.96 [−2.42; 0.51]
Shadiqur et al. 2020−19	3	1.00	1.00	3	2.00	1.00	−0.80 [−2.46; 0.86]
Shadiqur et al. 2020−20	3	1.00	1.00	3	2.00	1.00	−0.80 [−2.46; 0.86]
Groner & Relyea 2011−14	3	11773.00	1032.00	3	12874.00	1181.00	−0.79 [−2.45; 0.87]
Leboulanger et al. 2011−17	3	28.91	5.72	3	33.05	2.73	−0.74 [−2.39; 0.92]
Smith et al. 2018−8	4	91.50	53.70	4	157.20	97.80	−0.72 [−2.15; 0.71]
del Arco et al. 2023−82	5	16.23	17.62	5	38.27	35.66	−0.71 [−1.99; 0.57]
Finnegan et al. 2018−38	3	41.25	13.91	4	55.30	18.65	−0.70 [−2.24; 0.84]
Stoler et al. 2017−7	3	28.67	11.50	4	45.50	25.17	−0.68 [−2.22; 0.86]
Rumschlag et al. 2020−36	4	30.90	16.61	4	47.80	25.93	−0.67 [−2.10; 0.75]
del Arco et al. 2023−76	5	6.07	7.56	5	16.53	18.85	−0.66 [−1.93; 0.62]
Shadiqur et al. 2020−13	3	2.00	1.00	3	2.67	0.58	−0.65 [−2.30; 0.99]
Shadiqur et al. 2020−14	3	2.00	1.00	3	2.67	0.58	−0.65 [−2.30; 0.99]
Shadiqur et al. 2020−22	3	1.33	0.58	3	2.00	1.00	−0.65 [−2.30; 0.99]
del Arco et al. 2023−92	5	45.37	49.02	5	74.67	32.01	−0.64 [−1.91; 0.63]
Finnegan et al. 2018−66	2	41.33	13.94	4	55.30	18.65	−0.63 [−2.37; 1.10]
Rumschlag et al. 2020−66	4	29.60	24.17	4	47.80	25.93	−0.63 [−2.05; 0.79]
del Arco et al. 2023−72	5	8.17	9.65	5	17.63	17.68	−0.60 [−1.87; 0.67]
Bjergager et al. 2011−136	3	935.20	362.10	3	1252.30	484.80	−0.59 [−2.23; 1.04]
Finnegan et al. 2018−109	3	4.09	2.59	4	6.64	4.21	−0.59 [−2.12; 0.94]
del Arco et al. 2023−73	5	9.47	11.27	5	22.02	25.03	−0.58 [−1.85; 0.68]
Bjergager et al. 2011−121	3	1673.10	647.70	3	2204.20	853.50	−0.56 [−2.19; 1.07]
del Arco et al. 2023−89	5	9.20	10.90	5	20.93	24.76	−0.55 [−1.82; 0.71]
del Arco et al. 2023−85	5	8.03	9.67	5	18.60	22.51	−0.55 [−1.81; 0.71]
del Arco et al. 2023−90	5	8.80	9.70	5	19.67	23.50	−0.55 [−1.81; 0.72]
del Arco et al. 2023−78	5	8.60	8.13	5	18.93	23.20	−0.54 [−1.80; 0.73]
del Arco et al. 2023−75	5	5.07	8.66	5	12.41	15.40	−0.53 [−1.79; 0.73]
del Arco et al. 2023−77	5	7.87	9.21	5	17.63	22.10	−0.52 [−1.78; 0.74]
del Arco et al. 2023−86	5	10.27	11.12	5	21.87	26.34	−0.52 [−1.78; 0.74]
Shadiqur et al. 2020−27	3	0.33	0.47	3	0.67	0.58	−0.51 [−2.14; 1.11]
Shadiqur et al. 2020−39	3	0.33	0.47	3	0.67	0.58	−0.51 [−2.14; 1.11]
Finnegan et al. 2018−140	2	6.92	4.24	4	10.86	6.65	−0.51 [−2.23; 1.21]
del Arco et al. 2023−84	5	9.67	10.41	5	20.07	24.05	−0.51 [−1.77; 0.75]
Finnegan et al. 2018−52	4	45.51	15.35	4	55.30	18.65	−0.50 [−1.91; 0.91]
del Arco et al. 2023−80	5	5.80	6.50	5	12.40	15.80	−0.49 [−1.75; 0.77]
del Arco et al. 2023−87	5	11.90	12.85	5	23.87	28.50	−0.49 [−1.75; 0.77]
del Arco et al. 2023−88	5	12.50	13.76	5	24.80	29.10	−0.49 [−1.75; 0.77]
del Arco et al. 2023−79	5	6.13	7.72	5	14.00	19.32	−0.48 [−1.74; 0.77]
del Arco et al. 2023−83	5	12.73	14.88	5	24.67	28.92	−0.47 [−1.73; 0.79]
Shadiqur et al. 2020−26	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−38	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Finnegan et al. 2018−111	3	5.65	4.53	4	8.75	7.02	−0.42 [−1.94; 1.09]
del Arco et al. 2023−74	5	7.17	9.38	5	13.19	15.57	−0.42 [−1.68; 0.83]
del Arco et al. 2023−81	5	10.88	13.45	5	19.70	25.52	−0.39 [−1.64; 0.86]
Smith et al. 2018−7	4	116.80	95.30	4	157.20	97.80	−0.36 [−1.76; 1.03]
Shadiqur et al. 2020−33	3	0.67	0.47	3	1.00	1.00	−0.34 [−1.95; 1.27]
Rumschlag et al. 2020−11	4	31.80	19.46	4	39.00	19.01	−0.33 [−1.72; 1.07]
Finnegan et al. 2018−115	3	5.01	2.68	4	6.15	3.29	−0.31 [−1.82; 1.19]
Finnegan et al. 2018−108	3	5.04	2.69	4	6.15	3.29	−0.30 [−1.81; 1.20]
Bjergager et al. 2011−128	3	1081.40	418.70	3	1252.30	484.80	−0.30 [−1.91; 1.31]
Smith et al. 2018−5	4	133.20	84.20	4	157.20	97.80	−0.23 [−1.62; 1.16]
Stoler et al. 2017−5	4	40.25	13.38	4	45.50	25.17	−0.23 [−1.62; 1.16]

Finnegan et al. 2018−114	3	5.01	5.42	4	6.63	7.17	−0.21 [−1.71; 1.29]
Finnegan et al. 2018−50	4	24.95	21.54	4	30.46	26.30	−0.20 [−1.59; 1.19]
Rumschlag et al. 2020−29	4	32.10	39.70	4	39.00	19.01	−0.19 [−1.58; 1.20]
Finnegan et al. 2018−45	3	52.13	17.58	4	55.30	18.65	−0.15 [−1.65; 1.35]
Stoler et al. 2017−8	3	40.67	20.23	4	43.75	21.17	−0.12 [−1.62; 1.37]
Finnegan et al. 2018−42	3	34.99	16.40	4	37.20	17.43	−0.11 [−1.61; 1.39]
Leboulanger et al. 2011−13	3	32.62	4.17	3	33.05	8.94	−0.05 [−1.65; 1.55]
Shadiqur et al. 2020−25	3	0.67	0.58	3	0.67	0.58	0.00 [−1.60; 1.60]
Shadiqur et al. 2020−30	3	0.67	0.47	3	0.67	0.58	0.00 [−1.60; 1.60]
Shadiqur et al. 2020−37	3	0.67	0.58	3	0.67	0.58	0.00 [−1.60; 1.60]
Bjergager et al. 2011−150	3	1640.70	634.80	3	1631.80	631.30	0.01 [−1.59; 1.61]
Bjergager et al. 2011−151	3	1432.00	553.90	3	1418.70	549.10	0.02 [−1.58; 1.62]
Bjergager et al. 2011−149	3	1861.90	720.30	3	1844.00	713.20	0.02 [−1.58; 1.62]
Bjergager et al. 2011−145	3	2226.10	862.30	3	2204.20	853.50	0.02 [−1.58; 1.62]
Bjergager et al. 2011−148	3	2053.40	794.90	3	2027.60	785.10	0.03 [−1.57; 1.63]
Bjergager et al. 2011−152	3	1271.50	492.30	3	1252.30	484.80	0.03 [−1.57; 1.63]
Bjergager et al. 2011−146	3	2592.10	1005.70	3	2540.80	985.10	0.04 [−1.56; 1.64]
Bjergager et al. 2011−147	3	2264.30	877.10	3	2211.30	856.10	0.05 [−1.55; 1.65]
Finnegan et al. 2018−139	2	10.84	8.70	4	8.75	7.02	0.22 [−1.48; 1.93]
Total (Random Model)							**−1.13 [−1.29; −0.97]**
Heterogeneity: I^2 = 35.1%, τ^2 = 0.2327, p < 0.0001							
Nauplii							
del Arco et al. 2016−8	6	2.80	1.02	6	7.60	2.71	−2.16 [−3.59; −0.74]
del Arco et al. 2016−7	6	6.33	1.41	6	7.60	2.71	−0.54 [−1.69; 0.61]
Total (Random Model)							**−1.30 [−2.88; 0.29]**
Heterogeneity: I^2 = 66.7%, τ^2 = 0.8764, p = 0.0830							
Oligochaeta							
Yao et al. 2024−3	3	15.00	3.00	3	40.00	7.00	−3.70 [−6.34; −1.07]
Yao et al. 2024−5	3	40.00	8.00	3	95.00	15.00	−3.65 [−6.26; −1.04]
Yao et al. 2024−13	3	50.00	10.00	3	90.00	12.00	−2.89 [−5.18; −0.60]
Yao et al. 2024−10	3	55.00	9.00	3	90.00	12.00	−2.63 [−4.82; −0.45]
Yao et al. 2024−2	3	22.00	4.00	3	40.00	7.00	−2.52 [−4.66; −0.38]
Yao et al. 2024−7	3	60.00	10.00	3	90.00	12.00	−2.17 [−4.18; −0.15]
Yao et al. 2024−1	3	25.00	5.00	3	40.00	7.00	−1.97 [−3.92; −0.02]
Yao et al. 2024−4	3	70.00	12.00	3	95.00	15.00	−1.47 [−3.27; 0.33]
Total (Random Model)							**−2.45 [−3.21; −1.69]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.8558							
Ostracoda							
Bjergager et al. 2011−171	3	91.80	35.50	3	1465.60	567.10	−2.73 [−4.95; −0.50]
Bjergager et al. 2011−172	3	97.00	37.60	3	1293.90	500.90	−2.69 [−4.90; −0.48]
Bjergager et al. 2011−170	3	210.60	81.60	3	1721.30	666.30	−2.54 [−4.69; −0.39]
Bjergager et al. 2011−173	3	181.60	70.30	3	1125.10	435.50	−2.41 [−4.52; −0.31]
Bjergager et al. 2011−164	3	390.20	151.10	3	1293.90	500.90	−1.95 [−3.89; −0.01]
Bjergager et al. 2011−174	3	319.30	123.50	3	980.40	379.60	−1.87 [−3.79; 0.05]
Bjergager et al. 2011−163	3	495.70	191.80	3	1465.60	567.10	−1.83 [−3.73; 0.08]
Bjergager et al. 2011−165	3	410.70	159.00	3	1125.10	435.50	−1.74 [−3.62; 0.14]
Bjergager et al. 2011−169	3	764.40	295.90	3	1914.80	741.40	−1.63 [−3.47; 0.22]
Bjergager et al. 2011−162	3	799.30	309.30	3	1721.30	666.30	−1.42 [−3.21; 0.37]
Bjergager et al. 2011−166	3	496.80	192.20	3	980.40	379.60	−1.28 [−3.04; 0.47]
Bjergager et al. 2011−156	3	744.30	287.90	3	1293.90	500.90	−1.07 [−2.79; 0.64]
Bjergager et al. 2011−175	3	491.20	190.10	3	849.60	329.10	−1.06 [−2.77; 0.65]
Bjergager et al. 2011−155	3	884.60	342.40	3	1465.60	567.10	−0.99 [−2.69; 0.71]
Bjergager et al. 2011−157	3	691.80	267.90	3	1125.10	435.50	−0.96 [−2.65; 0.73]
Bjergager et al. 2011−161	3	1294.60	501.20	3	1914.80	741.40	−0.78 [−2.44; 0.88]
Bjergager et al. 2011−154	3	1195.30	462.60	3	1721.30	666.30	−0.73 [−2.38; 0.92]
Bjergager et al. 2011−167	3	610.40	236.30	3	849.60	329.10	−0.67 [−2.31; 0.98]
Bjergager et al. 2011−158	3	708.10	274.30	3	980.40	379.60	−0.66 [−2.30; 0.99]
Bjergager et al. 2011−153	3	1608.50	622.60	3	1914.80	741.40	−0.36 [−1.97; 1.26]
Bjergager et al. 2011−176	3	664.80	257.20	3	763.10	295.50	−0.28 [−1.89; 1.33]
Bjergager et al. 2011−159	3	749.40	290.10	3	849.60	329.10	−0.26 [−1.86; 1.35]
Bjergager et al. 2011−168	3	739.80	286.20	3	763.10	295.50	−0.06 [−1.66; 1.54]
Total (Random Model)							**−1.15 [−1.52; −0.78]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.8436							
Rotifera							
Yao et al. 2024−18	3	0.50	0.10	3	7.00	1.50	−4.88 [−8.07; −1.69]
Hermann et al. 2025−52	3	11.40	2.50	3	45.10	7.40	−4.87 [−8.05; −1.68]
Hermann et al. 2025−50	3	12.20	2.70	3	46.80	7.60	−4.84 [−8.01; −1.67]
Hermann et al. 2025−48	3	13.40	2.90	3	48.40	7.90	−4.69 [−7.79; −1.59]
Hermann et al. 2025−46	3	14.70	3.10	3	50.70	8.30	−4.58 [−7.63; −1.54]
Yao et al. 2024−30	3	1.00	0.40	3	15.00	3.50	−4.48 [−7.48; −1.48]
Hermann et al. 2025−44	3	17.20	3.70	3	54.10	8.70	−4.40 [−7.37; −1.44]
Yao et al. 2024−33	3	2.50	0.20	3	14.00	3.00	−4.32 [−7.24; −1.40]
Yao et al. 2024−24	3	0.20	0.05	3	4.00	1.00	−4.28 [−7.19; −1.38]
Hermann et al. 2025−42	3	19.50	4.30	3	58.40	9.50	−4.21 [−7.08; −1.34]
Yao et al. 2024−21	3	0.40	0.10	3	6.00	1.50	−4.20 [−7.07; −1.34]
Lewis et al. 2021−51	4	14.85	2.92	4	30.62	3.64	−4.15 [−6.61; −1.69]
Yao et al. 2024−17	3	1.50	0.30	3	7.00	1.50	−4.06 [−6.86; −1.26]
Yao et al. 2024−38	3	2.50	0.70	3	10.00	2.00	−3.99 [−6.76; −1.22]
Lewis et al. 2021−59	4	16.78	2.46	4	30.62	3.64	−3.87 [−6.22; −1.52]
Yao et al. 2024−35	3	3.00	0.80	3	12.00	2.50	−3.87 [−6.58; −1.16]
Yao et al. 2024−27	3	0.10	0.05	3	3.50	1.00	−3.83 [−6.53; −1.14]
Lewis et al. 2021−49	4	14.85	3.65	4	30.62	3.64	−3.76 [−6.06; −1.45]
Yao et al. 2024−23	3	0.80	0.20	3	4.00	1.00	−3.54 [−6.10; −0.98]
Yao et al. 2024−29	3	4.00	1.00	3	15.00	3.50	−3.41 [−5.92; −0.90]

Yao et al. 2024−20	3	1.50	0.30	3	6.00	1.50	−3.32 [−5.79; −0.85]
Hermann et al. 2025−59	3	19.50	3.80	3	41.20	6.70	−3.18 [−5.59; −0.77]
Hermann et al. 2025−57	3	20.10	3.90	3	41.90	6.80	−3.14 [−5.53; −0.75]
Hermann et al. 2025−55	3	20.90	4.10	3	42.70	7.00	−3.03 [−5.38; −0.69]
Shadiqur et al. 2020−63	3	1.33	0.58	3	4.00	0.82	−3.00 [−5.33; −0.67]
Shadiqur et al. 2020−69	3	0.33	0.58	3	3.00	0.82	−3.00 [−5.33; −0.67]
Hermann et al. 2025−53	3	22.30	4.30	3	43.80	7.20	−2.89 [−5.18; −0.60]
Yao et al. 2024−26	3	0.70	0.50	3	3.50	1.00	−2.83 [−5.09; −0.56]
Hermann et al. 2025−51	3	23.60	4.60	3	45.10	7.40	−2.78 [−5.03; −0.54]
Bjergager et al. 2011−195	3	216.60	83.80	3	3882.20	1498.40	−2.76 [−4.99; −0.52]
Hermann et al. 2025−49	3	24.90	4.90	3	46.80	7.60	−2.73 [−4.96; −0.51]
Bjergager et al. 2011−196	3	280.20	108.40	3	3635.70	1401.90	−2.69 [−4.90; −0.48]
Yao et al. 2024−32	3	6.00	1.50	3	14.00	3.00	−2.69 [−4.90; −0.48]
Smith et al. 2018−18	4	26.30	34.20	4	239.00	93.40	−2.63 [−4.52; −0.74]
Shadiqur et al. 2020−62	3	1.67	0.58	3	4.00	0.82	−2.62 [−4.80; −0.44]
Shadiqur et al. 2020−66	3	0.67	0.58	3	3.00	0.82	−2.62 [−4.80; −0.44]
Shadiqur et al. 2020−68	3	0.67	0.58	3	3.00	0.82	−2.62 [−4.80; −0.44]
Hermann et al. 2025−47	3	27.10	5.10	3	48.40	7.90	−2.56 [−4.71; −0.40]
Bjergager et al. 2011−194	3	574.00	222.20	3	4128.90	1594.90	−2.49 [−4.62; −0.36]
Bjergager et al. 2011−197	3	547.60	212.00	3	3351.40	1292.90	−2.41 [−4.52; −0.31]
Hermann et al. 2025−45	3	29.30	5.60	3	50.70	8.30	−2.41 [−4.51; −0.31]
del Arco et al. 2016−2	6	398.00	83.00	6	756.00	191.00	−2.24 [−3.69; −0.80]
Leboulanger et al. 2011−4	3	1.39	0.74	3	18.06	8.90	−2.11 [−4.10; −0.11]
Shadiqur et al. 2020−93	3	0.33	0.58	3	1.67	0.47	−2.03 [−3.99; −0.06]
Yao et al. 2024−22	3	2.00	0.50	3	4.00	1.00	−2.02 [−3.98; −0.05]
Hermann et al. 2025−43	3	34.60	6.80	3	54.10	8.70	−1.99 [−3.95; −0.04]
Bjergager et al. 2011−187	3	1195.10	462.70	3	3882.20	1498.40	−1.93 [−3.87; 0.01]
Hermann et al. 2025−41	3	38.20	7.20	3	58.40	9.50	−1.91 [−3.84; 0.02]
Bjergager et al. 2011−198	3	960.70	372.00	3	3018.90	1164.20	−1.90 [−3.83; 0.03]
Bjergager et al. 2011−188	3	1166.50	451.60	3	3635.70	1401.90	−1.89 [−3.82; 0.03]
Yao et al. 2024−16	3	4.00	1.00	3	7.00	1.50	−1.88 [−3.80; 0.04]
Shadiqur et al. 2020−65	3	1.33	0.58	3	3.00	0.82	−1.88 [−3.80; 0.04]
Shadiqur et al. 2020−67	3	1.33	0.58	3	3.00	0.82	−1.88 [−3.80; 0.04]
Shadiqur et al. 2020−61	3	2.00	1.00	3	4.00	0.82	−1.75 [−3.63; 0.14]
Yao et al. 2024−25	3	1.80	0.50	3	3.50	1.00	−1.72 [−3.59; 0.16]
Bjergager et al. 2011−189	3	1421.70	550.30	3	3351.40	1292.90	−1.55 [−3.37; 0.28]
Shadiqur et al. 2020−76	3	1.33	0.58	3	2.33	0.47	−1.51 [−3.33; 0.30]
Shadiqur et al. 2020−91	3	0.67	0.58	3	1.67	0.47	−1.51 [−3.33; 0.30]
Shadiqur et al. 2020−92	3	0.67	0.58	3	1.67	0.47	−1.51 [−3.33; 0.30]
Shadiqur et al. 2020−64	3	1.67	0.58	3	3.00	0.82	−1.49 [−3.30; 0.32]
Bjergager et al. 2011−193	3	2007.30	776.90	3	4372.50	1691.00	−1.43 [−3.23; 0.36]
Bjergager et al. 2011−186	3	1898.20	735.40	3	4128.90	1594.90	−1.43 [−3.23; 0.36]
Smith et al. 2018−14	4	1.50	3.00	4	14.80	11.10	−1.42 [−2.97; 0.13]
Yao et al. 2024−34	3	8.00	2.00	3	12.00	2.50	−1.41 [−3.20; 0.38]
Yao et al. 2024−37	3	7.00	1.80	3	10.00	2.00	−1.26 [−3.01; 0.49]
del Arco et al. 2016−1	6	548.00	108.00	6	756.00	191.00	−1.24 [−2.47; −0.00]
Finnegan et al. 2018−78	3	21.18	7.75	4	37.88	13.85	−1.19 [−2.81; 0.43]
Bjergager et al. 2011−199	3	1493.20	578.20	3	2676.70	1032.10	−1.13 [−2.85; 0.59]
Leboulanger et al. 2011−3	3	9.12	2.24	3	18.06	8.90	−1.10 [−2.82; 0.62]
Bjergager et al. 2011−190	3	1795.90	695.20	3	3018.90	1164.20	−1.02 [−2.72; 0.68]
Shadiqur et al. 2020−59	3	1.67	0.58	3	2.33	0.47	−1.00 [−2.69; 0.70]
Bjergager et al. 2011−180	3	2245.20	869.10	3	3635.70	1401.90	−0.95 [−2.64; 0.74]
del Arco et al. 2014−1	6	3.33	3.33	6	6.67	3.33	−0.93 [−2.12; 0.27]
Bjergager et al. 2011−181	3	2187.50	846.50	3	3351.40	1292.90	−0.85 [−2.52; 0.82]
Bjergager et al. 2011−179	3	2549.60	987.20	3	3882.20	1498.40	−0.84 [−2.51; 0.83]
Yao et al. 2024−28	3	12.00	3.00	3	15.00	3.50	−0.73 [−2.39; 0.92]
Yao et al. 2024−19	3	5.00	1.00	3	6.00	1.50	−0.63 [−2.26; 1.01]
Bjergager et al. 2011−185	3	3237.70	1253.50	3	4372.50	1691.00	−0.61 [−2.25; 1.03]
Bjergager et al. 2011−182	3	2310.30	894.40	3	3018.90	1164.20	−0.54 [−2.17; 1.09]
Bjergager et al. 2011−178	3	3190.90	1235.00	3	4128.90	1594.90	−0.52 [−2.15; 1.10]
Leboulanger et al. 2011−2	3	14.18	3.92	3	18.06	8.90	−0.45 [−2.07; 1.17]
Finnegan et al. 2018−91	4	0.66	0.63	4	1.08	1.04	−0.42 [−1.83; 0.98]
Bjergager et al. 2011−191	3	2204.80	854.00	3	2676.70	1032.10	−0.40 [−2.01; 1.22]
Finnegan et al. 2018−85	4	33.10	12.10	4	37.88	13.85	−0.32 [−1.71; 1.08]
Finnegan et al. 2018−73	3	15.02	34.95	4	40.02	93.11	−0.28 [−1.78; 1.23]
Yao et al. 2024−31	3	13.00	3.00	3	14.00	3.00	−0.27 [−1.87; 1.34]
Bjergager et al. 2011−200	3	2083.80	807.20	3	2361.20	911.90	−0.26 [−1.86; 1.35]
Finnegan et al. 2018−92	4	34.18	12.50	4	37.88	13.85	−0.24 [−1.63; 1.15]
Bjergager et al. 2011−177	3	3948.70	1527.20	3	4372.50	1691.00	−0.21 [−1.81; 1.39]
Finnegan et al. 2018−79	3	43.89	83.54	4	70.52	134.23	−0.19 [−1.69; 1.31]
Smith et al. 2018−13	4	13.00	8.50	4	14.80	11.10	−0.16 [−1.55; 1.23]
Finnegan et al. 2018−72	3	49.02	93.31	4	70.52	134.23	−0.15 [−1.65; 1.35]
Finnegan et al. 2018−77	3	0.96	0.92	4	1.08	1.04	−0.10 [−1.60; 1.40]
Bjergager et al. 2011−183	3	2557.30	990.20	3	2676.70	1032.10	−0.09 [−1.70; 1.51]
Finnegan et al. 2018−80	3	34.24	79.66	4	40.02	93.11	−0.06 [−1.55; 1.44]
Finnegan et al. 2018−99	2	37.44	13.69	4	37.88	13.85	−0.03 [−1.72; 1.67]
Shadiqur et al. 2020−56	3	2.33	0.58	3	2.33	0.47	0.00 [−1.60; 1.60]
Finnegan et al. 2018−101	2	61.74	143.65	4	40.02	93.11	0.16 [−1.54; 1.86]
Total (Random Model)							**−1.68 [−1.92; −1.43]**
Heterogeneity: I^2 = 40%, τ^2 = 0.5563, p < 0.0001							
Total (Random Model)							**−1.42 [−1.50; −1.34]**
Heterogeneity: I^2 = 25.9%, τ^2 = 0.2390, p < 0.0001							
t for subgroup differences: χ^2_7 = 50.14, df = 7 (p < 0.0001)							



Study	Experimental N	Experimental Mean	Experimental SD	Control N	Control Mean	Control SD	SMD [95%−CI]
Acroperus harpae							
Hermann et al. 2025−39	3	48.10	9.10	3	123.20	16.70	−4.46 [−7.44; −1.47]
Hermann et al. 2025−37	3	50.30	9.40	3	126.70	17.20	−4.40 [−7.36; −1.44]
Hermann et al. 2025−35	3	54.20	9.90	3	130.50	17.70	−4.25 [−7.13; −1.36]
Hermann et al. 2025−33	3	59.70	10.90	3	135.60	18.40	−4.00 [−6.78; −1.23]
Hermann et al. 2025−31	3	65.30	11.70	3	141.80	19.20	−3.84 [−6.54; −1.14]
Hermann et al. 2025−29	3	70.90	12.60	3	149.20	20.30	−3.70 [−6.33; −1.06]
Hermann et al. 2025−27	3	83.40	14.20	3	158.50	21.70	−3.27 [−5.71; −0.82]
Hermann et al. 2025−25	3	94.10	15.70	3	170.10	23.40	−3.04 [−5.39; −0.69]
Hermann et al. 2025−21	3	120.50	19.40	3	205.60	27.50	−2.85 [−5.13; −0.58]
Hermann et al. 2025−23	3	110.20	17.30	3	184.30	24.90	−2.76 [−4.99; −0.52]
Total (Random Model)							**−3.53 [−4.35; −2.71]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9894							
Alona quadrangularis							
Chen et al. 2024−90	2	27.40	2.80	2	41.10	3.20	−2.57 [−5.22; 0.08]
Chen et al. 2024−65	2	33.00	3.10	2	47.70	3.40	−2.55 [−5.19; 0.09]
Chen et al. 2024−70	2	34.20	3.10	2	48.90	3.40	−2.55 [−5.19; 0.09]
Chen et al. 2024−85	2	28.90	2.90	2	42.50	3.20	−2.51 [−5.13; 0.11]
Chen et al. 2024−55	2	28.50	2.90	2	42.20	3.30	−2.49 [−5.10; 0.12]
Chen et al. 2024−60	2	32.30	3.10	2	46.50	3.40	−2.46 [−5.06; 0.14]
Chen et al. 2024−80	2	30.50	3.00	2	44.20	3.30	−2.45 [−5.04; 0.14]
Chen et al. 2024−75	2	32.70	3.10	2	45.60	3.30	−2.27 [−4.79; 0.24]
Chen et al. 2024−84	2	30.30	3.00	2	42.50	3.20	−2.22 [−4.71; 0.27]
Chen et al. 2024−64	2	35.20	3.10	2	47.70	3.40	−2.17 [−4.64; 0.30]
Chen et al. 2024−79	2	32.20	3.00	2	44.20	3.30	−2.15 [−4.61; 0.31]
Chen et al. 2024−89	2	29.50	2.90	2	41.10	3.20	−2.14 [−4.60; 0.32]
Chen et al. 2024−59	2	34.00	3.20	2	46.50	3.40	−2.14 [−4.59; 0.32]
Chen et al. 2024−69	2	36.40	3.20	2	48.90	3.40	−2.14 [−4.59; 0.32]
Chen et al. 2024−54	2	30.30	3.00	2	42.20	3.30	−2.13 [−4.58; 0.32]
Chen et al. 2024−50	2	22.80	2.70	2	33.40	3.00	−2.10 [−4.53; 0.34]
Chen et al. 2024−81	2	31.90	3.00	2	42.50	3.20	−1.93 [−4.30; 0.44]
Chen et al. 2024−86	2	30.80	2.90	2	41.10	3.20	−1.90 [−4.27; 0.46]
Chen et al. 2024−74	2	34.90	3.20	2	45.60	3.30	−1.86 [−4.20; 0.49]
Chen et al. 2024−56	2	35.80	3.20	2	46.50	3.40	−1.83 [−4.16; 0.51]
Chen et al. 2024−76	2	34.00	3.10	2	44.20	3.30	−1.80 [−4.12; 0.52]
Chen et al. 2024−51	2	32.10	3.10	2	42.20	3.30	−1.78 [−4.10; 0.54]
Chen et al. 2024−66	2	38.40	3.30	2	48.90	3.40	−1.77 [−4.08; 0.54]
Chen et al. 2024−87	2	31.50	3.00	2	41.10	3.20	−1.75 [−4.05; 0.56]
Chen et al. 2024−82	2	33.20	3.00	2	42.50	3.20	−1.69 [−3.98; 0.59]
Chen et al. 2024−57	2	36.70	3.20	2	46.50	3.40	−1.67 [−3.95; 0.60]
Chen et al. 2024−61	2	37.90	3.30	2	47.70	3.40	−1.65 [−3.92; 0.62]
Chen et al. 2024−49	2	25.00	2.80	2	33.40	3.00	−1.63 [−3.90; 0.63]
Chen et al. 2024−77	2	35.10	3.10	2	44.20	3.30	−1.60 [−3.86; 0.65]
Chen et al. 2024−67	2	39.50	3.30	2	48.90	3.40	−1.58 [−3.83; 0.66]
Chen et al. 2024−52	2	33.40	3.10	2	42.20	3.30	−1.55 [−3.79; 0.68]
Chen et al. 2024−71	2	36.70	3.20	2	45.60	3.30	−1.54 [−3.78; 0.69]
Chen et al. 2024−88	2	32.70	3.00	2	41.10	3.20	−1.53 [−3.76; 0.70]
Chen et al. 2024−62	2	39.10	3.30	2	47.70	3.40	−1.45 [−3.65; 0.75]
Chen et al. 2024−83	2	34.50	3.10	2	42.50	3.20	−1.43 [−3.63; 0.76]
Chen et al. 2024−58	2	38.00	3.30	2	46.50	3.40	−1.43 [−3.63; 0.77]
Chen et al. 2024−46	2	26.40	2.90	2	33.40	3.00	−1.34 [−3.51; 0.83]
Chen et al. 2024−78	2	36.50	3.20	2	44.20	3.30	−1.34 [−3.50; 0.83]
Chen et al. 2024−72	2	37.90	3.30	2	45.60	3.30	−1.32 [−3.48; 0.85]
Chen et al. 2024−68	2	41.10	3.40	2	48.90	3.40	−1.29 [−3.45; 0.86]
Chen et al. 2024−63	2	40.30	3.30	2	47.70	3.40	−1.25 [−3.39; 0.90]
Chen et al. 2024−73	2	38.50	3.30	2	45.60	3.30	−1.21 [−3.35; 0.92]
Chen et al. 2024−47	2	27.10	2.90	2	33.40	3.00	−1.20 [−3.34; 0.93]
Chen et al. 2024−53	2	35.50	3.20	2	42.20	3.30	−1.16 [−3.28; 0.96]
Chen et al. 2024−48	2	29.20	3.00	2	33.40	3.00	−0.79 [−2.82; 1.25]
Total (Random Model)							**−1.75 [−2.09; −1.40]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 1.0000							
Alona sp.							
del Arco et al. 2023−64	5	1.80	2.79	5	15.10	12.30	−1.35 [−2.72; 0.03]
del Arco et al. 2023−67	5	0.33	0.74	5	20.00	21.94	−1.14 [−2.48; 0.19]
del Arco et al. 2023−65	5	0.60	1.34	5	9.34	12.94	−0.86 [−2.15; 0.44]
del Arco et al. 2023−62	5	1.13	1.64	5	4.67	7.47	−0.59 [−1.86; 0.68]
del Arco et al. 2023−63	5	3.33	6.37	5	9.67	15.43	−0.48 [−1.74; 0.77]
Total (Random Model)							**−0.86 [−1.45; −0.28]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.8830							
Artemia sp.							
Jung et al. 2017−4	10	86.66	11.54	10	96.66	5.77	−1.05 [−1.98; −0.11]
Jung et al. 2017−21	10	90.00	10.00	10	96.66	5.77	−0.78 [−1.69; 0.13]
Jung et al. 2017−10	10	83.33	11.54	10	90.00	10.00	−0.59 [−1.49; 0.30]
Total (Random Model)							**−0.80 [−1.33; −0.27]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.7852							
Ascomorpha							
Hermann et al. 2025−52	3	11.40	2.50	3	45.10	7.40	−4.87 [−8.05; −1.68]
Hermann et al. 2025−50	3	12.20	2.70	3	46.80	7.60	−4.84 [−8.01; −1.67]
Hermann et al. 2025−48	3	13.40	2.90	3	48.40	7.90	−4.69 [−7.79; −1.59]
Hermann et al. 2025−46	3	14.70	3.10	3	50.70	8.30	−4.58 [−7.63; −1.54]
Hermann et al. 2025−44	3	17.20	3.70	3	54.10	8.70	−4.40 [−7.37; −1.44]
Hermann et al. 2025−42	3	19.50	4.30	3	58.40	9.50	−4.21 [−7.08; −1.34]
Hermann et al. 2025−59	3	19.50	3.80	3	41.20	6.70	−3.18 [−5.59; −0.77]
Hermann et al. 2025−57	3	20.10	3.90	3	41.90	6.80	−3.14 [−5.53; −0.75]
Hermann et al. 2025−55	3	20.90	4.10	3	42.70	7.00	−3.03 [−5.38; −0.69]
Hermann et al. 2025−53	3	22.30	4.30	3	43.80	7.20	−2.89 [−5.18; −0.60]
Hermann et al. 2025−51	3	23.60	4.60	3	45.10	7.40	−2.78 [−5.03; −0.54]
Hermann et al. 2025−49	3	24.90	4.90	3	46.80	7.60	−2.73 [−4.96; −0.51]
Hermann et al. 2025−47	3	27.10	5.10	3	48.40	7.90	−2.56 [−4.71; −0.40]
Hermann et al. 2025−45	3	29.30	5.60	3	50.70	8.30	−2.41 [−4.51; −0.31]
Hermann et al. 2025−43	3	34.60	6.80	3	54.10	8.70	−1.99 [−3.95; −0.04]
Hermann et al. 2025−41	3	38.20	7.20	3	58.40	9.50	−1.91 [−3.84; 0.02]
Total (Random Model)							**−3.07 [−3.67; −2.46]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.8705							
Bosmina sp.							
Rumschlag et al. 2020−4	4	0.10	0.20	4	398.45	319.31	−1.53 [−3.11; 0.04]
Rumschlag et al. 2020−34	4	0.30	0.38	4	398.45	319.31	−1.53 [−3.11; 0.04]
Rumschlag et al. 2020−70	4	0.40	0.50	4	398.45	319.31	−1.53 [−3.11; 0.04]
Rumschlag et al. 2020−46	4	0.70	1.15	4	398.45	319.31	−1.53 [−3.11; 0.05]
Rumschlag et al. 2020−40	4	4.60	9.07	4	398.45	319.31	−1.51 [−3.09; 0.06]
Rumschlag et al. 2020−22	4	5.90	3.80	4	398.45	319.31	−1.51 [−3.08; 0.06]
Rumschlag et al. 2020−28	4	59.80	42.51	4	398.45	319.31	−1.29 [−2.81; 0.23]
Rumschlag et al. 2020−64	4	71.50	45.90	4	398.45	319.31	−1.25 [−2.76; 0.27]
Rumschlag et al. 2020−58	4	85.30	49.80	4	398.45	319.31	−1.19 [−2.69; 0.31]
Rumschlag et al. 2020−52	4	134.10	81.70	4	398.45	319.31	−0.99 [−2.45; 0.48]
Rumschlag et al. 2020−16	4	135.20	184.85	4	398.45	319.31	−0.88 [−2.33; 0.57]
del Arco et al. 2023−53	5	0.13	0.30	5	2.63	4.60	−0.69 [−1.97; 0.58]
Rumschlag et al. 2020−10	4	202.70	297.13	4	398.45	319.31	−0.55 [−1.96; 0.86]
Total (Random Model)							**−1.19 [−1.61; −0.78]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9974							
Brachionus sp.							
Shadiqur et al. 2020−76	3	1.33	0.58	3	2.33	0.47	−1.51 [−3.33; 0.30]
Smith et al. 2018−14	4	1.50	3.00	4	14.80	11.10	−1.42 [−2.97; 0.13]
Smith et al. 2018−13	4	13.00	8.50	4	14.80	11.10	−0.16 [−1.55; 1.23]
Total (Random Model)							**−0.92 [−1.86; 0.01]**
Heterogeneity: I^2 = 0%, τ^2 = 0.0527, p = 0.3742							
Calanoid sp.							
del Arco et al. 2023−76	5	6.07	7.56	5	16.53	18.85	−0.66 [−1.93; 0.62]
del Arco et al. 2023−72	5	8.17	9.65	5	17.63	17.68	−0.60 [−1.87; 0.67]
del Arco et al. 2023−73	5	9.47	11.27	5	22.02	25.03	−0.58 [−1.85; 0.68]
del Arco et al. 2023−78	5	8.60	8.13	5	18.93	23.20	−0.54 [−1.80; 0.73]
del Arco et al. 2023−75	5	5.07	8.66	5	12.41	15.40	−0.53 [−1.79; 0.73]
del Arco et al. 2023−77	5	7.87	9.21	5	17.63	22.10	−0.52 [−1.78; 0.74]
del Arco et al. 2023−80	5	5.80	6.50	5	12.40	15.80	−0.49 [−1.75; 0.77]
del Arco et al. 2023−79	5	6.13	7.72	5	14.00	19.32	−0.48 [−1.74; 0.77]
del Arco et al. 2023−74	5	7.17	9.38	5	13.19	15.57	−0.42 [−1.68; 0.83]
Total (Random Model)							**−0.54 [−0.96; −0.12]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 1.0000							
Ceriodaphnia sp.							
Yao et al. 2024−48	3	0.50	0.20	3	15.00	3.50	−4.67 [−7.75; −1.58]
Yao et al. 2024−45	3	2.00	0.60	3	18.00	4.00	−4.46 [−7.45; −1.47]
Yao et al. 2024−51	3	0.20	0.05	3	12.00	3.00	−4.44 [−7.42; −1.46]
Yao et al. 2024−42	3	3.00	0.80	3	20.00	4.50	−4.20 [−7.06; −1.33]
Yao et al. 2024−47	3	4.00	1.20	3	15.00	3.50	−3.35 [−5.84; −0.87]
Yao et al. 2024−50	3	3.00	0.80	3	12.00	3.00	−3.27 [−5.72; −0.82]
Yao et al. 2024−44	3	7.00	1.80	3	18.00	4.00	−2.83 [−5.09; −0.57]
Yao et al. 2024−41	3	9.00	2.00	3	20.00	4.50	−2.52 [−4.66; −0.38]
Smith et al. 2018−10	4	1.30	2.50	4	254.80	208.50	−1.49 [−3.06; 0.07]
Yao et al. 2024−40	3	15.00	3.50	3	20.00	4.50	−0.99 [−2.69; 0.71]
Yao et al. 2024−46	3	12.00	3.00	3	15.00	3.50	−0.73 [−2.39; 0.92]
Yao et al. 2024−49	3	10.00	2.50	3	12.00	3.00	−0.58 [−2.21; 1.06]
Yao et al. 2024−43	3	16.00	4.00	3	18.00	4.00	−0.40 [−2.02; 1.22]
Total (Random Model)							**−2.22 [−3.07; −1.38]**
Heterogeneity: I^2 = 49.5%, τ^2 = 1.1808, p = 0.0219							
Chydori sp.							
Hermann et al. 2025−17	3	17.20	4.80	3	67.20	10.70	−4.81 [−7.97; −1.65]
Hermann et al. 2025−19	3	16.10	4.70	3	64.80	10.50	−4.78 [−7.92; −1.64]
Hermann et al. 2025−15	3	19.40	5.30	3	70.30	11.20	−4.64 [−7.71; −1.56]
Hermann et al. 2025−13	3	22.30	5.90	3	74.50	11.80	−4.46 [−7.45; −1.47]
Hermann et al. 2025−11	3	26.90	6.50	3	80.20	12.50	−4.27 [−7.17; −1.37]
Hermann et al. 2025−9	3	32.70	7.40	3	87.40	13.20	−4.08 [−6.89; −1.27]
Hermann et al. 2025−7	3	40.30	8.50	3	95.10	13.90	−3.80 [−6.47; −1.12]
Hermann et al. 2025−5	3	51.10	9.70	3	108.30	15.70	−3.50 [−6.04; −0.95]
Hermann et al. 2025−3	3	64.90	10.90	3	120.50	16.40	−3.19 [−5.60; −0.78]
Hermann et al. 2025−1	3	85.20	12.40	3	145.70	18.30	−3.09 [−5.46; −0.72]
Bjergager et al. 2011−83	3	621.10	244.80	3	3605.90	1393.40	−2.38 [−4.47; −0.29]
Bjergager et al. 2011−84	3	643.30	253.70	3	3461.20	1336.40	−2.34 [−4.41; −0.26]
Bjergager et al. 2011−82	3	761.00	299.70	3	3731.50	1442.30	−2.28 [−4.33; −0.22]
Bjergager et al. 2011−75	3	821.10	323.40	3	3605.90	1393.40	−2.20 [−4.22; −0.17]
Bjergager et al. 2011−76	3	833.30	328.00	3	3461.20	1336.40	−2.15 [−4.17; −0.14]
Bjergager et al. 2011−85	3	865.30	340.10	3	3310.00	1279.00	−2.08 [−4.07; −0.10]
Bjergager et al. 2011−74	3	1024.30	403.60	3	3731.50	1442.30	−2.04 [−4.01; −0.07]
Bjergager et al. 2011−67	3	1111.90	430.20	3	3605.90	1393.40	−1.93 [−3.87; 0.01]
Bjergager et al. 2011−68	3	1093.70	423.50	3	3461.20	1336.40	−1.91 [−3.84; 0.02]
Bjergager et al. 2011−77	3	1066.70	420.10	3	3310.00	1279.00	−1.88 [−3.80; 0.04]
Bjergager et al. 2011−66	3	1387.40	537.00	3	3731.50	1442.30	−1.72 [−3.59; 0.15]
Bjergager et al. 2011−86	3	1300.50	510.50	3	3152.70	1219.20	−1.58 [−3.41; 0.25]
Bjergager et al. 2011−69	3	1398.30	541.40	3	3310.00	1279.00	−1.55 [−3.38; 0.27]
Bjergager et al. 2011−81	3	1831.10	721.40	3	3873.40	1498.10	−1.39 [−3.17; 0.40]
Bjergager et al. 2011−78	3	1600.20	630.20	3	3152.70	1219.20	−1.28 [−3.03; 0.48]
Bjergager et al. 2011−73	3	2252.10	892.70	3	3873.40	1498.10	−1.05 [−2.76; 0.66]
del Arco et al. 2023−42	5	0.09	0.13	5	21.33	26.15	−1.04 [−2.36; 0.28]
del Arco et al. 2023−41	5	0.29	0.26	5	13.80	17.13	−1.01 [−2.32; 0.31]
Bjergager et al. 2011−87	3	1851.60	726.80	3	2981.60	1152.10	−0.94 [−2.62; 0.75]
del Arco et al. 2023−43	5	0.27	0.39	5	41.00	55.83	−0.93 [−2.24; 0.37]
del Arco et al. 2023−46	5	0.29	0.47	5	41.80	62.55	−0.85 [−2.14; 0.45]
Bjergager et al. 2011−70	3	2082.70	805.90	3	3152.70	1219.20	−0.83 [−2.49; 0.84]
del Arco et al. 2023−45	5	0.26	0.40	5	55.67	87.90	−0.80 [−2.09; 0.48]
del Arco et al. 2023−44	5	1.47	1.86	5	259.26	418.21	−0.79 [−2.07; 0.50]
Bjergager et al. 2011−65	3	2631.30	1019.30	3	3873.40	1498.10	−0.77 [−2.43; 0.89]
Rumschlag et al. 2020−3	4	0.10	0.10	4	27.15	51.23	−0.65 [−2.07; 0.77]
Rumschlag et al. 2020−33	4	0.10	0.12	4	27.15	51.23	−0.65 [−2.07; 0.77]
Bjergager et al. 2011−79	3	2197.50	865.30	3	2981.60	1152.10	−0.61 [−2.25; 1.02]
Rumschlag et al. 2020−51	4	2.60	3.01	4	27.15	51.23	−0.59 [−2.00; 0.83]
Stoler et al. 2017−19	3	0.33	0.58	4	1.00	1.15	−0.58 [−2.11; 0.95]
Rumschlag et al. 2020−21	4	4.20	4.34	4	27.15	51.23	−0.55 [−1.96; 0.86]
Rumschlag et al. 2020−9	4	8.00	8.80	4	27.15	51.23	−0.45 [−1.86; 0.95]
Bjergager et al. 2011−88	3	2302.20	903.60	3	2825.40	1091.10	−0.42 [−2.03; 1.20]
Rumschlag et al. 2020−63	4	15.20	17.70	4	27.15	51.23	−0.27 [−1.66; 1.12]
Rumschlag et al. 2020−57	4	16.20	19.00	4	27.15	51.23	−0.25 [−1.64; 1.14]
Bjergager et al. 2011−71	3	2728.60	1056.50	3	2981.60	1152.10	−0.18 [−1.79; 1.42]
Rumschlag et al. 2020−27	4	21.00	22.93	4	27.15	51.23	−0.13 [−1.52; 1.25]
Bjergager et al. 2011−80	3	2654.40	1045.70	3	2825.40	1091.10	−0.13 [−1.73; 1.47]
Stoler et al. 2017−18	4	1.50	1.29	4	1.75	2.06	−0.13 [−1.51; 1.26]
Bjergager et al. 2011−94	3	3090.70	1197.30	3	3152.70	1219.20	−0.04 [−1.64; 1.56]
Bjergager et al. 2011−93	3	3256.40	1262.40	3	3310.00	1279.00	−0.03 [−1.63; 1.57]
Bjergager et al. 2011−91	3	3550.10	1375.40	3	3605.90	1393.40	−0.03 [−1.63; 1.57]
Bjergager et al. 2011−92	3	3423.00	1325.60	3	3461.20	1336.40	−0.02 [−1.62; 1.58]
Bjergager et al. 2011−95	3	2951.10	1142.30	3	2981.60	1152.10	−0.02 [−1.62; 1.58]
Bjergager et al. 2011−90	3	3701.40	1430.30	3	3731.50	1442.30	−0.02 [−1.62; 1.58]
Bjergager et al. 2011−96	3	2812.30	1089.50	3	2825.40	1091.10	−0.01 [−1.61; 1.59]
Bjergager et al. 2011−89	3	3898.20	1507.70	3	3873.40	1498.10	0.01 [−1.59; 1.61]
Total (Random Model)							**−0.99 [−1.22; −0.77]**
Heterogeneity: I^2 = 30.8%, τ^2 < 0.0001, p = 0.0164							
Cyclops sp.							
Lewis et al. 2021−25	4	13.13	2.60	4	27.18	3.24	−4.15 [−6.61; −1.69]
Lewis et al. 2021−27	4	13.13	2.60	4	27.18	3.24	−4.15 [−6.61; −1.69]
Lewis et al. 2021−33	4	14.85	2.19	4	27.18	3.24	−3.87 [−6.22; −1.52]
Lewis et al. 2021−35	4	14.85	2.19	4	27.18	3.24	−3.87 [−6.22; −1.52]
Rumschlag et al. 2020−72	4	0.70	0.55	4	47.80	25.93	−2.23 [−4.00; −0.47]
Rumschlag et al. 2020−42	4	1.50	1.35	4	47.80	25.93	−2.19 [−3.94; −0.44]
Rumschlag et al. 2020−6	4	2.60	1.14	4	47.80	25.93	−2.14 [−3.88; −0.40]
Rumschlag et al. 2020−48	4	7.90	9.44	4	47.80	25.93	−1.78 [−3.41; −0.14]
Rumschlag et al. 2020−30	4	18.10	5.53	4	47.80	25.93	−1.38 [−2.92; 0.17]
Rumschlag et al. 2020−54	4	20.20	12.90	4	47.80	25.93	−1.17 [−2.67; 0.33]
Rumschlag et al. 2020−60	4	24.20	11.91	4	47.80	25.93	−1.02 [−2.49; 0.46]
Finnegan et al. 2018−133	4	4.87	2.98	5	10.86	6.65	−1.01 [−2.48; 0.46]
Rumschlag et al. 2020−18	4	21.70	21.14	4	47.80	25.93	−0.96 [−2.42; 0.51]
Smith et al. 2018−8	4	91.53	53.70	4	157.20	97.80	−0.72 [−2.15; 0.71]
del Arco et al. 2023−82	5	16.23	17.62	5	38.27	35.66	−0.71 [−1.99; 0.57]
Rumschlag et al. 2020−36	4	30.90	16.61	4	47.80	25.93	−0.67 [−2.10; 0.75]
Rumschlag et al. 2020−66	4	29.60	24.17	4	47.80	25.93	−0.63 [−2.05; 0.79]
Finnegan et al. 2018−109	3	4.09	2.59	5	6.64	4.21	−0.59 [−2.12; 0.94]
del Arco et al. 2023−89	5	9.20	10.90	5	20.93	24.76	−0.55 [−1.82; 0.71]
del Arco et al. 2023−85	5	8.03	9.67	5	18.60	22.51	−0.55 [−1.81; 0.71]
del Arco et al. 2023−90	5	8.80	9.70	5	19.67	23.50	−0.55 [−1.81; 0.72]
del Arco et al. 2023−86	5	10.27	11.12	5	21.87	26.34	−0.52 [−1.78; 0.74]
Finnegan et al. 2018−140	2	6.92	4.24	5	10.86	6.65	−0.51 [−2.23; 1.21]
del Arco et al. 2023−84	5	9.67	10.41	5	20.07	24.05	−0.51 [−1.77; 0.75]
del Arco et al. 2023−87	5	11.90	12.85	5	23.87	28.50	−0.49 [−1.75; 0.77]
del Arco et al. 2023−88	5	12.50	13.76	5	24.80	29.10	−0.49 [−1.75; 0.77]
del Arco et al. 2023−83	5	12.73	14.88	5	24.67	28.92	−0.47 [−1.73; 0.79]
Finnegan et al. 2018−111	3	5.65	4.53	4	8.75	7.02	−0.42 [−1.94; 1.09]
del Arco et al. 2023−81	5	10.88	13.45	5	19.70	25.52	−0.39 [−1.64; 0.86]
Smith et al. 2018−7	4	116.80	95.30	4	157.20	97.80	−0.36 [−1.76; 1.03]
Finnegan et al. 2018−115	3	5.01	2.68	4	6.15	3.29	−0.31 [−1.82; 1.19]
Finnegan et al. 2018−108	3	5.04	2.69	4	6.15	3.29	−0.30 [−1.81; 1.20]
Smith et al. 2018−5	4	133.20	84.20	4	157.20	97.80	−0.23 [−1.62; 1.16]
Finnegan et al. 2018−114	3	5.01	5.42	4	6.63	7.17	−0.21 [−1.71; 1.29]
Finnegan et al. 2018−139	2	10.84	8.70	4	8.75	7.02	0.22 [−1.48; 1.93]
Total (Random Model)							**−0.85 [−1.10; −0.60]**
Heterogeneity: I^2 = 21.2%, τ^2 < 0.0001, p = 0.1348							
Daphnia sp.							
Bjergager et al. 2011−51	3	116.70	45.10	3	25410.20	9834.80	−2.90 [−5.19; −0.61]
Bjergager et al. 2011−52	3	151.60	58.70	3	24417.80	9440.70	−2.90 [−5.19; −0.61]
Bjergager et al. 2011−53	3	213.70	82.70	3	23408.40	9044.90	−2.89 [−5.18; −0.60]
Bjergager et al. 2011−50	3	231.90	89.70	3	26438.50	10233.30	−2.89 [−5.18; −0.60]
Bjergager et al. 2011−43	3	489.40	189.60	3	25410.20	9834.80	−2.86 [−5.13; −0.58]
Bjergager et al. 2011−44	3	503.60	194.90	3	24417.80	9440.70	−2.86 [−5.13; −0.58]
Bjergager et al. 2011−54	3	550.50	213.10	3	22287.30	8607.00	−2.85 [−5.12; −0.58]
Bjergager et al. 2011−35	3	651.40	252.30	3	25410.20	9834.80	−2.84 [−5.11; −0.57]
Bjergager et al. 2011−45	3	795.20	307.90	3	23408.40	9044.90	−2.82 [−5.08; −0.56]
Bjergager et al. 2011−42	3	883.10	341.90	3	26438.50	10233.30	−2.82 [−5.07; −0.56]
Bjergager et al. 2011−36	3	874.50	338.50	3	24417.80	9440.70	−2.81 [−5.07; −0.56]
Bjergager et al. 2011−34	3	1086.30	420.20	3	26438.50	10233.30	−2.79 [−5.04; −0.54]
Bjergager et al. 2011−55	3	1157.60	448.00	3	21094.10	8143.40	−2.76 [−4.99; −0.52]
Bjergager et al. 2011−59	3	1336.20	517.10	3	25410.20	9834.80	−2.76 [−4.99; −0.52]
Bjergager et al. 2011−46	3	1341.80	519.50	3	22287.30	8607.00	−2.74 [−4.97; −0.51]
Bjergager et al. 2011−37	3	1513.20	585.80	3	23408.40	9044.90	−2.73 [−4.95; −0.50]
Bjergager et al. 2011−60	3	1847.00	714.10	3	24417.80	9440.70	−2.69 [−4.90; −0.48]
Bjergager et al. 2011−58	3	2084.50	806.80	3	26438.50	10233.30	−2.68 [−4.88; −0.47]
Bjergager et al. 2011−56	3	1784.20	690.80	3	20142.60	7775.20	−2.65 [−4.85; −0.46]
Bjergager et al. 2011−61	3	2356.10	912.20	3	21094.10	8143.40	−2.61 [−4.79; −0.43]
Bjergager et al. 2011−47	3	2205.50	853.60	3	21094.10	8143.40	−2.60 [−4.78; −0.43]
Rumschlag et al. 2020−43	4	0.20	0.19	4	79.10	37.87	−2.56 [−4.43; −0.69]
Bjergager et al. 2011−49	3	3218.00	1245.60	3	27150.60	10511.20	−2.55 [−4.71; −0.40]
Rumschlag et al. 2020−31	4	0.50	0.53	4	79.10	37.87	−2.55 [−4.42; −0.68]
Rumschlag et al. 2020−37	4	1.10	1.72	4	79.10	37.87	−2.53 [−4.39; −0.67]
Rumschlag et al. 2020−1	4	1.50	1.64	4	79.10	37.87	−2.52 [−4.37; −0.66]
Bjergager et al. 2011−48	3	2952.10	1143.40	3	20142.60	7775.20	−2.47 [−4.59; −0.34]
Bjergager et al. 2011−62	3	3428.70	1327.90	3	22287.30	8607.00	−2.44 [−4.56; −0.33]
Bjergager et al. 2011−38	3	3580.40	1385.60	3	22287.30	8607.00	−2.42 [−4.53; −0.31]
del Arco et al. 2023−32	5	0.21	0.37	5	17.70	9.45	−2.36 [−3.98; −0.75]
Bjergager et al. 2011−41	3	5981.60	2314.90	3	27150.60	10511.20	−2.22 [−4.25; −0.19]
Bjergager et al. 2011−63	3	5060.00	1960.20	3	21094.10	8143.40	−2.16 [−4.17; −0.15]
Bjergager et al. 2011−39	3	5175.20	2001.70	3	21094.10	8143.40	−2.14 [−4.15; −0.13]
Geyer et al. 2016−1	4	0.13	0.06	4	0.73	0.37	−1.97 [−3.65; −0.28]
Bjergager et al. 2011−64	3	6203.50	2400.70	3	20142.60	7775.20	−1.93 [−3.87; 0.01]
Bjergager et al. 2011−40	3	6417.90	2483.70	3	20142.60	7775.20	−1.90 [−3.82; 0.03]
Bjergager et al. 2011−33	3	9382.10	3633.00	3	27150.60	10511.20	−1.80 [−3.70; 0.09]
Bjergager et al. 2011−57	3	10293.30	3989.10	3	27150.60	10511.20	−1.69 [−3.56; 0.17]
Rumschlag et al. 2020−49	4	23.60	19.03	4	79.10	37.87	−1.61 [−3.20; −0.01]
Rumschlag et al. 2020−55	4	32.80	16.80	4	79.10	37.87	−1.37 [−2.91; 0.17]
Rumschlag et al. 2020−25	4	38.80	20.66	4	79.10	37.87	−1.15 [−2.64; 0.35]
Rumschlag et al. 2020−19	4	30.90	43.20	4	79.10	37.87	−1.03 [−2.51; 0.44]
Shadiqur et al. 2020−131	3	0.67	0.58	3	1.33	0.58	−0.91 [−2.59; 0.77]
del Arco et al. 2023−33	5	0.07	0.14	5	13.47	19.24	−0.89 [−2.19; 0.41]
del Arco et al. 2023−35	5	0.13	0.24	5	6.01	9.90	−0.76 [−2.04; 0.53]
Rumschlag et al. 2020−61	4	44.50	42.30	4	79.10	37.87	−0.75 [−2.18; 0.68]
del Arco et al. 2023−31	5	3.14	6.30	5	21.67	32.87	−0.71 [−1.98; 0.57]
del Arco et al. 2023−34	5	0.60	1.20	5	21.67	39.05	−0.69 [−1.96; 0.59]
Rumschlag et al. 2020−13	4	56.40	31.40	4	79.10	37.87	−0.57 [−1.98; 0.85]
Shadiqur et al. 2020−136	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−137	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Lopez−Valcarcel et al. 2024−2	4	18.00	6.78	4	20.50	3.69	−0.40 [−1.80; 1.00]
Lopez−Valcarcel et al. 2024−1	4	14.50	3.69	4	16.25	4.57	−0.37 [−1.76; 1.03]
Shadiqur et al. 2020−132	3	1.33	0.58	3	1.33	0.58	0.00 [−1.60; 1.60]
Total (Random Model)							**−1.74 [−2.02; −1.47]**
Heterogeneity: I^2 = 5.1%, τ^2 = 0.1638, p = 0.3685							
Dero digitata							
Yao et al. 2024−3	3	15.00	3.00	3	40.00	7.00	−3.70 [−6.34; −1.07]
Yao et al. 2024−5	3	40.00	8.00	3	95.00	15.00	−3.65 [−6.26; −1.04]
Yao et al. 2024−13	3	50.00	10.00	3	90.00	12.00	−2.89 [−5.18; −0.60]
Yao et al. 2024−10	3	55.00	9.00	3	90.00	12.00	−2.63 [−4.82; −0.45]
Yao et al. 2024−2	3	22.00	4.00	3	40.00	7.00	−2.52 [−4.66; −0.38]
Yao et al. 2024−7	3	60.00	10.00	3	90.00	12.00	−2.17 [−4.18; −0.15]
Yao et al. 2024−1	3	25.00	5.00	3	40.00	7.00	−1.97 [−3.92; −0.02]
Yao et al. 2024−4	3	70.00	12.00	3	95.00	15.00	−1.47 [−3.27; 0.33]
Total (Random Model)							**−2.45 [−3.21; −1.69]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.8558							
Diaphanosoma sp.							
Rumschlag et al. 2020−26	4	11.70	3.07	4	39.80	10.51	−3.15 [−5.23; −1.08]
Rumschlag et al. 2020−62	4	11.50	10.84	4	39.80	10.51	−2.30 [−4.09; −0.52]
Chen et al. 2024−110	2	23.20	2.50	2	34.00	3.00	−2.21 [−4.69; 0.28]
Chen et al. 2024−115	2	22.70	2.50	2	32.10	3.00	−1.92 [−4.29; 0.45]
Chen et al. 2024−105	2	22.80	2.50	2	32.00	2.90	−1.92 [−4.28; 0.45]
Chen et al. 2024−120	2	21.10	2.40	2	29.90	2.90	−1.87 [−4.21; 0.48]
Chen et al. 2024−135	2	16.10	2.00	2	23.30	2.60	−1.75 [−4.06; 0.55]
Chen et al. 2024−130	2	17.90	2.20	2	25.20	2.70	−1.67 [−3.95; 0.60]
Chen et al. 2024−109	2	25.60	2.70	2	34.00	3.00	−1.66 [−3.93; 0.61]
Chen et al. 2024−125	2	20.10	2.40	2	27.60	2.80	−1.62 [−3.88; 0.64]
Chen et al. 2024−100	2	19.50	2.30	2	26.70	2.70	−1.62 [−3.88; 0.64]
Chen et al. 2024−104	2	24.90	2.60	2	32.00	2.90	−1.45 [−3.66; 0.75]
Chen et al. 2024−95	2	15.10	2.00	2	20.40	2.30	−1.39 [−3.57; 0.80]
Chen et al. 2024−134	2	17.50	2.10	2	23.30	2.60	−1.38 [−3.57; 0.80]
Chen et al. 2024−114	2	25.10	2.70	2	32.10	3.00	−1.38 [−3.57; 0.80]
Chen et al. 2024−119	2	23.40	2.60	2	29.90	2.90	−1.33 [−3.50; 0.83]
Rumschlag et al. 2020−56	4	23.90	10.46	4	39.80	10.51	−1.32 [−2.85; 0.21]
Chen et al. 2024−129	2	19.50	2.30	2	25.20	2.70	−1.28 [−3.43; 0.87]
Chen et al. 2024−124	2	21.80	2.50	2	27.60	2.80	−1.23 [−3.37; 0.91]
Chen et al. 2024−99	2	21.30	2.40	2	26.70	2.70	−1.19 [−3.32; 0.93]
Chen et al. 2024−106	2	28.10	2.90	2	34.00	3.00	−1.13 [−3.24; 0.98]
Chen et al. 2024−121	2	22.50	2.60	2	27.60	2.80	−1.06 [−3.16; 1.03]
Chen et al. 2024−131	2	18.90	2.20	2	23.30	2.60	−1.03 [−3.12; 1.06]
Chen et al. 2024−101	2	26.80	2.80	2	32.00	2.90	−1.03 [−3.11; 1.06]
Chen et al. 2024−116	2	24.80	2.70	2	29.90	2.90	−1.03 [−3.11; 1.06]
Chen et al. 2024−94	2	16.50	2.10	2	20.40	2.30	−1.00 [−3.08; 1.08]
Chen et al. 2024−126	2	20.80	2.40	2	25.20	2.70	−0.97 [−3.04; 1.10]
Rumschlag et al. 2020−50	4	23.10	18.67	4	39.80	10.51	−0.96 [−2.42; 0.51]
Chen et al. 2024−111	2	27.20	2.90	2	32.10	3.00	−0.94 [−3.00; 1.13]
Chen et al. 2024−96	2	22.40	2.50	2	26.70	2.70	−0.93 [−3.00; 1.13]
Chen et al. 2024−107	2	29.30	3.00	2	34.00	3.00	−0.88 [−2.94; 1.17]
Chen et al. 2024−117	2	25.50	2.80	2	29.90	2.90	−0.87 [−2.92; 1.18]
Chen et al. 2024−102	2	27.90	2.80	2	32.00	2.90	−0.81 [−2.85; 1.23]
Chen et al. 2024−91	2	17.20	2.20	2	20.40	2.30	−0.80 [−2.84; 1.24]
Chen et al. 2024−122	2	23.90	2.60	2	27.60	2.80	−0.77 [−2.80; 1.26]
Chen et al. 2024−108	2	30.00	3.00	2	34.00	3.00	−0.75 [−2.78; 1.28]
Chen et al. 2024−97	2	23.30	2.50	2	26.70	2.70	−0.74 [−2.76; 1.29]
Chen et al. 2024−132	2	20.10	2.30	2	23.30	2.60	−0.74 [−2.76; 1.29]
Chen et al. 2024−127	2	21.90	2.50	2	25.20	2.70	−0.72 [−2.74; 1.31]
Chen et al. 2024−112	2	28.40	2.90	2	32.10	3.00	−0.71 [−2.73; 1.31]
Chen et al. 2024−118	2	26.80	2.80	2	29.90	2.90	−0.61 [−2.62; 1.39]
Chen et al. 2024−103	2	29.10	2.90	2	32.00	2.90	−0.56 [−2.56; 1.43]
Chen et al. 2024−92	2	18.10	2.30	2	20.40	2.30	−0.56 [−2.56; 1.43]
Shadiqur et al. 2020−42	3	0.33	0.47	3	0.67	0.58	−0.51 [−2.14; 1.11]
Shadiqur et al. 2020−51	3	0.33	0.47	3	0.67	0.58	−0.51 [−2.14; 1.11]
Chen et al. 2024−123	2	25.20	2.70	2	27.60	2.80	−0.49 [−2.48; 1.50]
Chen et al. 2024−113	2	29.50	3.00	2	32.10	3.00	−0.49 [−2.48; 1.50]
Chen et al. 2024−128	2	23.00	2.50	2	25.20	2.70	−0.48 [−2.46; 1.51]
Chen et al. 2024−133	2	21.20	2.40	2	23.30	2.60	−0.47 [−2.46; 1.51]
Shadiqur et al. 2020−41	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−49	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−50	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−52	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−53	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Rumschlag et al. 2020−14	4	27.50	31.11	4	39.80	10.51	−0.46 [−1.86; 0.94]
Chen et al. 2024−98	2	25.00	2.60	2	26.70	2.70	−0.36 [−2.34; 1.61]
Chen et al. 2024−93	2	19.00	2.30	2	20.40	2.30	−0.34 [−2.32; 1.63]
Shadiqur et al. 2020−40	3	0.67	0.58	3	0.67	0.58	0.00 [−1.60; 1.60]
Total (Random Model)							**−0.95 [−1.20; −0.69]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 1.0000							
Diaptomus sp.							
Shadiqur et al. 2020−27	3	0.33	0.47	3	0.67	0.58	−0.51 [−2.14; 1.11]
Shadiqur et al. 2020−39	3	0.33	0.47	3	0.67	0.58	−0.51 [−2.14; 1.11]
Shadiqur et al. 2020−26	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−38	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Shadiqur et al. 2020−33	3	0.67	0.47	3	1.00	1.00	−0.34 [−1.95; 1.27]
Rumschlag et al. 2020−11	4	31.80	19.46	4	39.00	19.01	−0.33 [−1.72; 1.07]
Rumschlag et al. 2020−29	4	32.10	39.70	4	39.00	19.01	−0.19 [−1.58; 1.20]
Shadiqur et al. 2020−25	3	0.67	0.58	3	0.67	0.58	0.00 [−1.60; 1.60]
Shadiqur et al. 2020−30	3	0.67	0.47	3	0.67	0.58	0.00 [−1.60; 1.60]
Shadiqur et al. 2020−37	3	0.67	0.58	3	0.67	0.58	0.00 [−1.60; 1.60]
Total (Random Model)							**−0.28 [−0.77; 0.22]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9999							
Keratella sp.							
Shadiqur et al. 2020−93	3	0.33	0.58	3	1.67	0.47	−2.03 [−3.99; −0.06]
Shadiqur et al. 2020−91	3	0.67	0.58	3	1.67	0.47	−1.51 [−3.33; 0.30]
Shadiqur et al. 2020−92	3	0.67	0.58	3	1.67	0.47	−1.51 [−3.33; 0.30]
Total (Random Model)							**−1.66 [−2.74; −0.59]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9122							
Kerattella tropica							
Yao et al. 2024−30	3	1.00	0.40	3	15.00	3.50	−4.48 [−7.48; −1.48]
Yao et al. 2024−33	3	2.50	0.20	3	14.00	3.00	−4.32 [−7.24; −1.40]
Yao et al. 2024−38	3	2.50	0.70	3	10.00	2.00	−3.99 [−6.76; −1.22]
Yao et al. 2024−35	3	3.00	0.80	3	12.00	2.50	−3.87 [−6.58; −1.16]
Yao et al. 2024−29	3	4.00	1.00	3	15.00	3.50	−3.41 [−5.92; −0.90]
Yao et al. 2024−32	3	6.00	1.50	3	14.00	3.00	−2.69 [−4.90; −0.48]
Yao et al. 2024−34	3	8.00	2.00	3	12.00	2.50	−1.41 [−3.20; 0.38]
Yao et al. 2024−37	3	7.00	1.80	3	10.00	2.00	−1.26 [−3.01; 0.49]
Yao et al. 2024−28	3	12.00	3.00	3	15.00	3.50	−0.73 [−2.39; 0.92]
Yao et al. 2024−31	3	13.00	3.00	3	14.00	3.00	−0.27 [−1.87; 1.34]
Total (Random Model)							**−2.29 [−3.29; −1.30]**
Heterogeneity: I^2 = 50.7%, τ^2 = 1.2960, p = 0.0323							
Lecane lunaris							
Yao et al. 2024−18	3	0.50	0.10	3	7.00	1.50	−4.88 [−8.07; −1.69]
Yao et al. 2024−24	3	0.20	0.05	3	4.00	1.00	−4.28 [−7.19; −1.38]
Yao et al. 2024−21	3	0.40	0.10	3	6.00	1.50	−4.20 [−7.07; −1.34]
Yao et al. 2024−17	3	1.50	0.30	3	7.00	1.50	−4.06 [−6.86; −1.26]
Yao et al. 2024−27	3	0.10	0.05	3	3.50	1.00	−3.83 [−6.53; −1.14]
Yao et al. 2024−23	3	0.80	0.20	3	4.00	1.00	−3.54 [−6.10; −0.98]
Yao et al. 2024−20	3	1.50	0.30	3	6.00	1.50	−3.32 [−5.79; −0.85]
Yao et al. 2024−26	3	0.70	0.50	3	3.50	1.00	−2.83 [−5.09; −0.56]
Yao et al. 2024−22	3	2.00	0.50	3	4.00	1.00	−2.02 [−3.98; −0.05]
Yao et al. 2024−16	3	4.00	1.00	3	7.00	1.50	−1.88 [−3.80; 0.04]
Yao et al. 2024−25	3	1.80	0.50	3	3.50	1.00	−1.72 [−3.59; 0.16]
Yao et al. 2024−19	3	5.00	1.00	3	6.00	1.50	−0.63 [−2.26; 1.01]
Total (Random Model)							**−2.74 [−3.54; −1.94]**
Heterogeneity: I^2 = 24%, τ^2 = 0.5714, p = 0.2075							
Moina sp.							
Shadiqur et al. 2020−124	3	0.33	0.58	3	0.67	0.58	−0.47 [−2.09; 1.15]
Nauplii							
Wendt−Rasch et al. 2003−1	3	15.00	2.00	3	25.00	3.00	−3.13 [−5.52; −0.74]
Stoler et al. 2017−15	3	27.00	10.39	4	52.00	8.68	−2.24 [−4.14; −0.33]
Smith et al. 2018−3	4	2.25	2.63	4	731.80	471.10	−1.90 [−3.57; −0.23]
Shadiqur et al. 2020−16	3	1.33	0.58	3	3.00	1.00	−1.63 [−3.48; 0.22]
Shadiqur et al. 2020−17	3	1.33	0.58	3	3.00	1.00	−1.63 [−3.48; 0.22]
Shadiqur et al. 2020−21	3	0.67	0.47	3	2.00	1.00	−1.36 [−3.13; 0.42]
Shadiqur et al. 2020−24	3	0.67	0.47	3	2.00	1.00	−1.36 [−3.13; 0.42]
Smith et al. 2018−1	4	219.20	101.30	4	731.80	471.10	−1.31 [−2.83; 0.22]
Shadiqur et al. 2020−23	3	0.67	0.58	3	2.00	1.00	−1.30 [−3.06; 0.46]
Shadiqur et al. 2020−18	3	1.67	0.94	3	3.00	1.00	−1.09 [−2.81; 0.62]
Smith et al. 2018−2	4	228.80	322.10	4	731.80	471.10	−1.08 [−2.57; 0.40]
Shadiqur et al. 2020−19	3	1.00	1.00	3	2.00	1.00	−0.80 [−2.46; 0.86]
Shadiqur et al. 2020−20	3	1.00	1.00	3	2.00	1.00	−0.80 [−2.46; 0.86]
Shadiqur et al. 2020−13	3	2.00	1.00	3	2.67	0.58	−0.65 [−2.30; 0.99]
Shadiqur et al. 2020−14	3	2.00	1.00	3	2.67	0.58	−0.65 [−2.30; 0.99]
Shadiqur et al. 2020−22	3	1.33	0.58	3	2.00	1.00	−0.65 [−2.30; 0.99]
Total (Random Model)							**−1.26 [−1.69; −0.83]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9695							
Simocephalus vetulus							
Chen et al. 2024−45	2	20.60	5.00	2	79.00	9.80	−4.24 [−7.76; −0.71]
Chen et al. 2024−40	2	22.70	5.20	2	81.80	10.00	−4.18 [−7.68; −0.68]
Chen et al. 2024−35	2	24.60	5.40	2	84.00	10.10	−4.14 [−7.61; −0.66]
Chen et al. 2024−30	2	28.00	5.70	2	86.50	10.20	−3.99 [−7.39; −0.60]
Chen et al. 2024−25	2	31.20	5.90	2	89.30	10.40	−3.88 [−7.20; −0.55]
Chen et al. 2024−44	2	27.20	5.50	2	79.00	9.80	−3.68 [−6.89; −0.46]
Chen et al. 2024−20	2	35.70	6.10	2	91.20	10.50	−3.65 [−6.84; −0.45]
Chen et al. 2024−39	2	30.10	5.70	2	81.80	10.00	−3.58 [−6.75; −0.42]
Chen et al. 2024−34	2	32.50	5.90	2	84.00	10.10	−3.51 [−6.64; −0.39]
Chen et al. 2024−29	2	36.50	6.20	2	86.50	10.20	−3.34 [−6.38; −0.31]
Chen et al. 2024−24	2	38.20	6.40	2	89.30	10.40	−3.34 [−6.37; −0.31]
Chen et al. 2024−15	2	47.30	6.30	2	95.60	10.80	−3.08 [−5.98; −0.18]
Chen et al. 2024−19	2	44.20	6.50	2	91.20	10.50	−3.04 [−5.91; −0.16]
Chen et al. 2024−43	2	36.30	6.00	2	79.00	9.80	−2.96 [−5.80; −0.13]
Chen et al. 2024−38	2	39.50	6.30	2	81.80	10.00	−2.86 [−5.64; −0.07]
Chen et al. 2024−33	2	42.80	6.40	2	84.00	10.10	−2.75 [−5.48; −0.02]
Chen et al. 2024−14	2	54.90	6.90	2	95.60	10.80	−2.53 [−5.17; 0.10]
Chen et al. 2024−28	2	47.70	6.80	2	86.50	10.20	−2.53 [−5.15; 0.10]
Chen et al. 2024−23	2	51.20	7.00	2	89.30	10.40	−2.42 [−5.01; 0.16]
Chen et al. 2024−42	2	47.30	6.50	2	79.00	9.80	−2.15 [−4.61; 0.31]
Chen et al. 2024−18	2	56.70	7.40	2	91.20	10.50	−2.14 [−4.60; 0.32]
Chen et al. 2024−37	2	51.00	6.90	2	81.80	10.00	−2.02 [−4.43; 0.39]
Chen et al. 2024−32	2	54.20	7.00	2	84.00	10.10	−1.93 [−4.31; 0.44]
Chen et al. 2024−13	2	65.70	7.60	2	95.60	10.80	−1.81 [−4.13; 0.52]
Chen et al. 2024−27	2	59.20	7.40	2	86.50	10.20	−1.73 [−4.03; 0.57]
Chen et al. 2024−22	2	62.80	7.70	2	89.30	10.40	−1.63 [−3.90; 0.63]
Chen et al. 2024−10	2	68.60	7.90	2	95.60	11.00	−1.59 [−3.84; 0.66]
Chen et al. 2024−41	2	55.30	6.90	2	79.00	9.80	−1.58 [−3.82; 0.67]
Chen et al. 2024−36	2	59.70	7.30	2	81.80	10.00	−1.42 [−3.62; 0.77]
Chen et al. 2024−17	2	68.10	8.00	2	91.20	10.50	−1.40 [−3.58; 0.79]
Chen et al. 2024−9	2	72.10	8.20	2	95.80	11.00	−1.38 [−3.56; 0.80]
Chen et al. 2024−31	2	63.40	7.50	2	84.00	10.10	−1.31 [−3.47; 0.85]
Chen et al. 2024−12	2	75.90	8.30	2	95.60	10.80	−1.15 [−3.27; 0.96]
Chen et al. 2024−26	2	67.90	7.90	2	86.50	10.20	−1.15 [−3.27; 0.97]
Chen et al. 2024−21	2	72.10	8.20	2	89.30	10.40	−1.04 [−3.12; 1.05]
Chen et al. 2024−8	2	77.90	8.60	2	95.80	11.00	−1.02 [−3.11; 1.06]
Chen et al. 2024−5	2	81.00	8.70	2	96.90	11.20	−0.89 [−2.95; 1.16]
Chen et al. 2024−16	2	77.40	8.60	2	91.20	10.50	−0.81 [−2.85; 1.23]
Chen et al. 2024−11	2	81.70	8.80	2	95.60	10.80	−0.80 [−2.83; 1.24]
Chen et al. 2024−4	2	84.30	9.10	2	96.90	11.20	−0.70 [−2.72; 1.32]
Chen et al. 2024−7	2	84.70	9.10	2	95.80	11.00	−0.62 [−2.63; 1.39]
Chen et al. 2024−3	2	88.90	9.40	2	96.90	11.20	−0.44 [−2.42; 1.55]
Chen et al. 2024−6	2	88.30	9.50	2	95.80	11.00	−0.41 [−2.39; 1.57]
Chen et al. 2024−2	2	92.20	9.60	2	96.90	11.20	−0.25 [−2.22; 1.71]
Chen et al. 2024−1	2	94.10	9.90	2	96.90	11.20	−0.15 [−2.11; 1.81]
Total (Random Model)							**−1.71 [−2.07; −1.35]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.8128							
Sinodiaptomus sarsi							
Chen et al. 2024−143	3	65.30	9.00	3	150.50	17.50	−4.89 [−8.08; −1.69]
Chen et al. 2024−142	3	72.90	9.80	3	160.80	18.90	−4.66 [−7.74; −1.58]
Chen et al. 2024−141	3	84.70	10.80	3	175.30	20.40	−4.43 [−7.40; −1.46]
Chen et al. 2024−140	3	96.40	12.00	3	189.20	21.30	−4.28 [−7.19; −1.38]
Chen et al. 2024−139	3	105.60	12.70	3	195.40	21.90	−4.00 [−6.78; −1.23]
Chen et al. 2024−138	3	110.90	13.90	3	200.30	22.80	−3.78 [−6.45; −1.11]
Chen et al. 2024−137	3	119.70	14.80	3	210.60	24.20	−3.62 [−6.21; −1.02]
Chen et al. 2024−136	3	128.50	15.30	3	220.40	25.60	−3.48 [−6.01; −0.94]
Total (Random Model)							**−4.07 [−5.06; −3.07]**
Heterogeneity: I^2 = 0%, τ^2 = 0, p = 0.9970							
Thermocyclops decipiens							
Leboulanger et al. 2011−15	3	22.57	2.24	3	33.05	2.98	−3.17 [−5.58; −0.77]
Leboulanger et al. 2011−18	3	21.92	7.06	3	33.05	1.34	−1.75 [−3.63; 0.13]
Leboulanger et al. 2011−14	3	25.42	3.92	3	33.05	3.24	−1.69 [−3.56; 0.17]
Leboulanger et al. 2011−17	3	28.91	5.72	3	33.05	2.73	−0.74 [−2.39; 0.92]
Leboulanger et al. 2011−13	3	32.62	4.17	3	33.05	8.94	−0.05 [−1.65; 1.55]
Total (Random Model)							**−1.27 [−2.21; −0.33]**
Heterogeneity: I^2 = 26.8%, τ^2 = 0.2668, p = 0.2429							
Total (Random Model)							**−1.33 [−1.43; −1.24]**
Heterogeneity: I^2 = 18.6%, τ^2 = 0.0691, p = 0.0007							
Test for subgroup differences: χ^2_{22} = 206.29, df = 22 (p < 0.0001)