https://doi.org/10.17221/6/2024-CJAS

Meta-analysis of genetic parameters for productive traits in Nile tilapia (*Oreochromis niloticus*)

Elizangela Zayana Lima D'suze[1], *Nandrya Hayne Santos de Lima*[1], *Denise de Assis Paiva*[2], *Nilsa Duarte da Silva Lima*[1], *Thalles Ribeiro Gomes*[1], *José Teodoro de Paiva*[1]*

[1]*Department of Animal Sciences, Federal University of Roraima, Boa Vista, Roraima, Brazil*
[2]*Department of Statistics, Federal University of Lavras, Lavras, Minas Gerais, Brazil*

**Corresponding author: jose.paiva@ufrr.br*

The authors are fully responsible for both the content and the formal aspects of the electronic supplementary material. No editorial adjustments were made.

Electronic Supplementary Material (ESM)

https://doi.org/10.17221/6/2024-CJAS

Figure S13. The forest plot of individual studies and the overall outcome for genetic correlation estimates between harvest weight and daily weight gain in Nile tilapia (*Oreochromis niloticus*)
Figure S14. The forest plot of individual studies and the overall outcome for genetic correlation estimates between harvest weight and width in Nile tilapia (*Oreochromis niloticus*)
Figure S15. The forest plot of individual studies and the overall outcome for genetic correlation estimates between harvest weight and fillet yield in Nile tilapia (*Oreochromis niloticus*)
Figure S16. The forest plot of individual studies and the overall outcome for genetic correlation estimates between daily weight gain and height in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

Table S1. Details of published studies used in meta-analysis in Nile tilapia

Number	Author (year)	Model	Method	Sample size
1	Barria et al. (2021)	animal	REML	2 265
2	Bentsen et al. (2012)	animal	REML	43 066
3	Bolivar et al. (2002)	animal	REML	39 524
4	Cardoso et al. (2021)	animal	Bayesian	1 971
5	Charo-Karisa et al. (2007)	animal	REML	6 253
6	de Araujo et al. (2020)	animal	Bayesian	4 367
7	de Oliveira et al. (2016)	animal	Bayesian	17 450
8	de Porto et al. (2015)	animal	REML	40 250
9	de Verdal et al. (2018)	animal	REML	981
10	Eknath et al. (2007)	animal	REML	31 163
11	Fernandes et al. (2015)	animal	Bayesian	9 421
12	Garcia et al. (2017)	animal	REML	2 402
13	Gjerde et al. (2012)	animal	REML	1 319
14	Hamzah et al. (2014)	animal	REML	33 812
15	He et al. (2015)	animal	REML	25 075
16	He et al. (2017)	animal	REML	257 040
17	Joshi et al. (2018)	animal	REML	20 148
18	Joshi et al. (2020)	animal	REML	11 552
19	Khaw et al. (2009)	animal	REML	38 200
20	Kitcharoen et al. (2022)	animal	REML	8 406
21	Kunita et al. (2013)	animal	Bayesian	7 296
22	Marjanovic et al. (2016)	animal	REML	69 034
23	Mengistu et al. (2020)	animal	REML	4 126
24	Neto et al. (2014)	animal	Bayesian	13 300
25	Nguyen et al. (2010)	animal	REML	21 323
26	Oliveira et al. (2017)	animal	REML	10 460
27	Omasaki et al. (2016)	animal	REML	6 315
28	Rezk et al. (2009)	animal	REML	4 170
29	Rutten et al. (2005)	animal	REML	7 536
30	Santos et al. (2011)	animal	Bayesian	5 470
31	Thoa et al. (2016)	animal	REML	105 180
32	Thodesen et al. (2011)	animal	REML	85 390
33	Thodesen et al. (2012)	animal	REML	105 116
34	Todesco et al. (2022)	animal	REML	1 213
35	Trong et al. (2013)	animal	REML	15 142
36	Yoshida et al. (2019)	animal	REML	47 186
37	Yoshida et al. (2021)	animal	REML	78 176

https://doi.org/10.17221/6/2024-CJAS

Table S2. Egger's test, number of missing studies, mean, and 95% confidence interval (95% CI) estimated through meta-analysis

Traits	Egger's test *P*-value	Trim-and-fill method		
		No of missing	mean	95% CI
BHE	0.1315	0	0.2010	0.1188 0 – 0.2833
FY	0.0929	0	0.1373	0.0701 – 0.2046
BWE – FY	0.2640	0	0.9890	0.6472 – 0.9999
DWG – BHE	0.0952	0	0.8749	0.7442 – 0.9411

BHE = body height; BWE = body weight; DWG = daily weight gain; FY = fillet yield

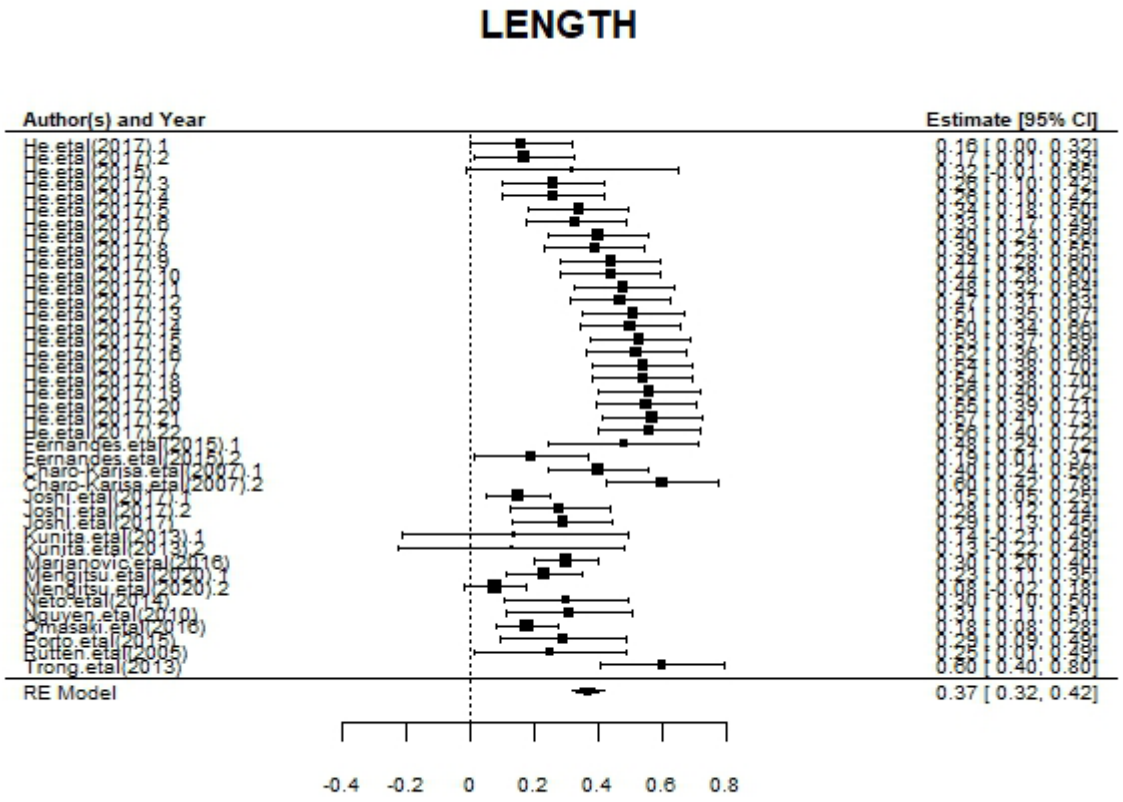

Figure S1. The forest plot of individual studies and the overall outcome for heritability estimates of lenght in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

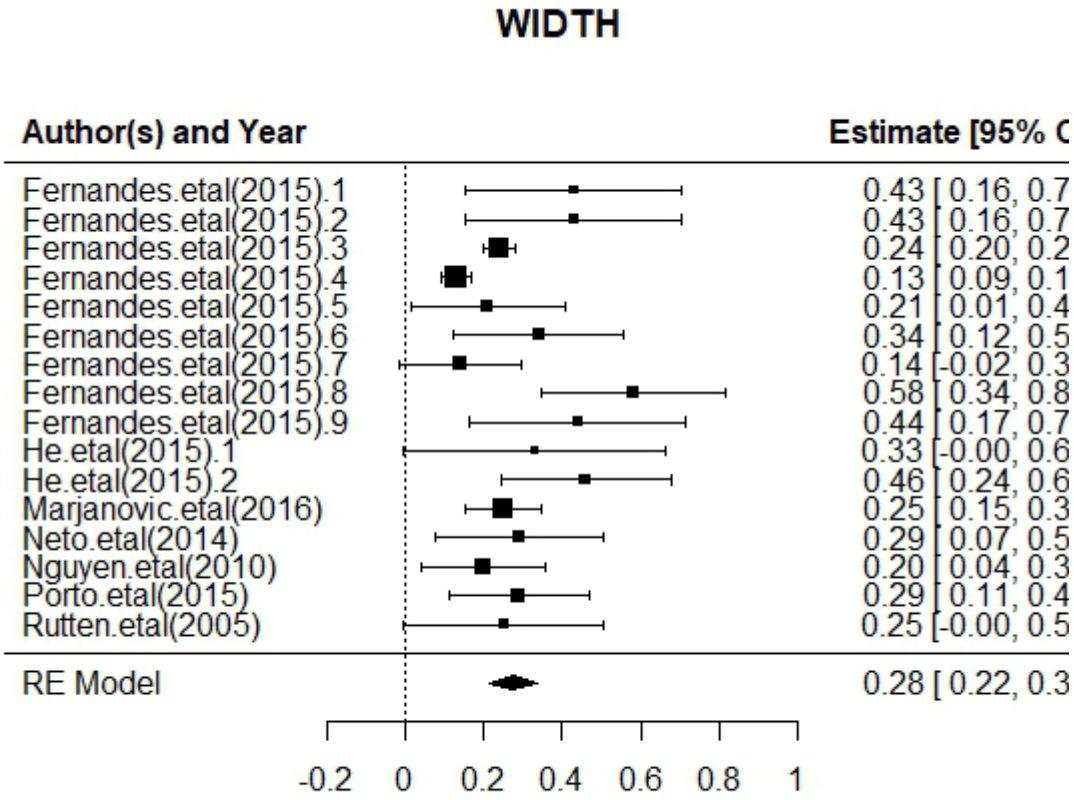

Figure S2. The forest plot of individual studies and the overall outcome for heritability estimates of width in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

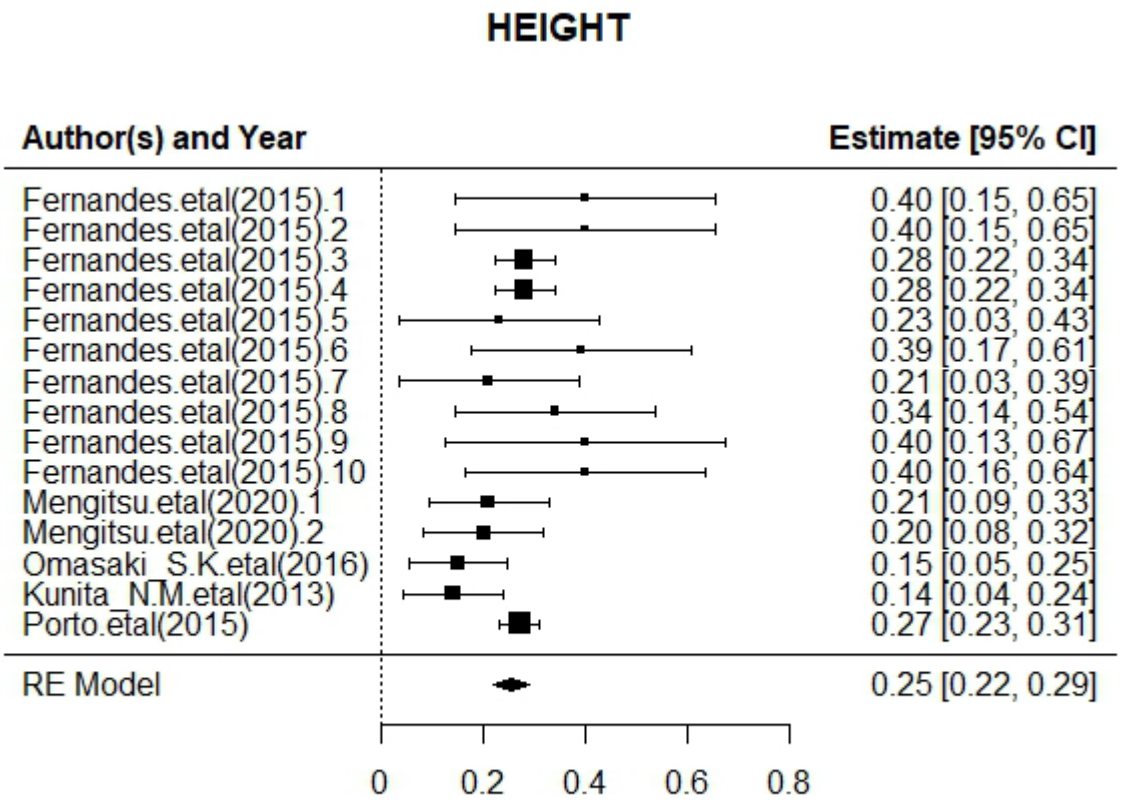

Figure S3. The forest plot of individual studies and the overall outcome for heritability estimates of height in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

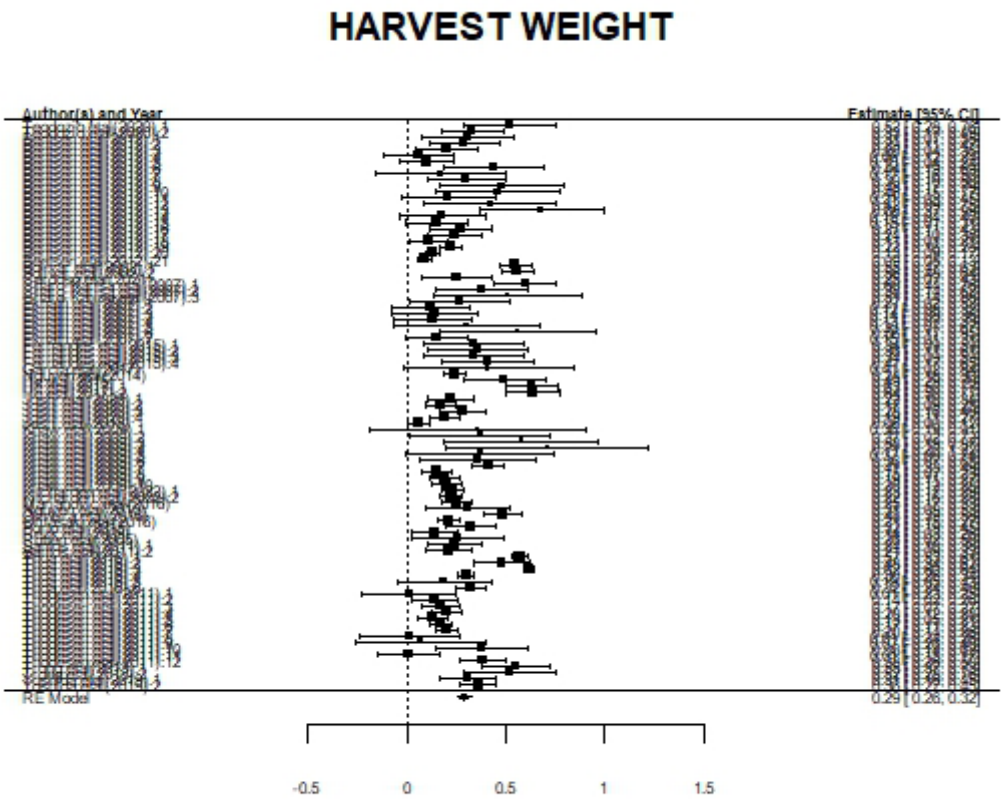

Figure S4. The forest plot of individual studies and the overall outcome for heritability estimates of harvest weight in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

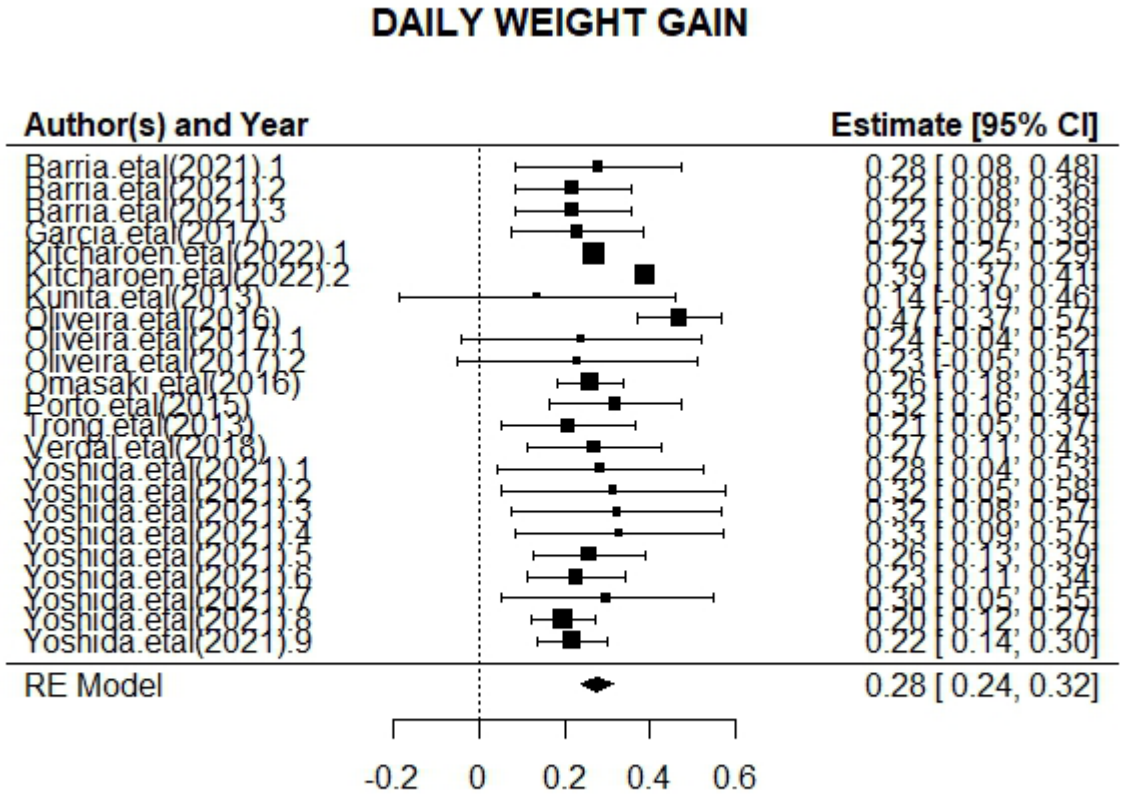

Figure S5. The forest plot of individual studies and the overall outcome for heritability estimates of daily weight gain in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

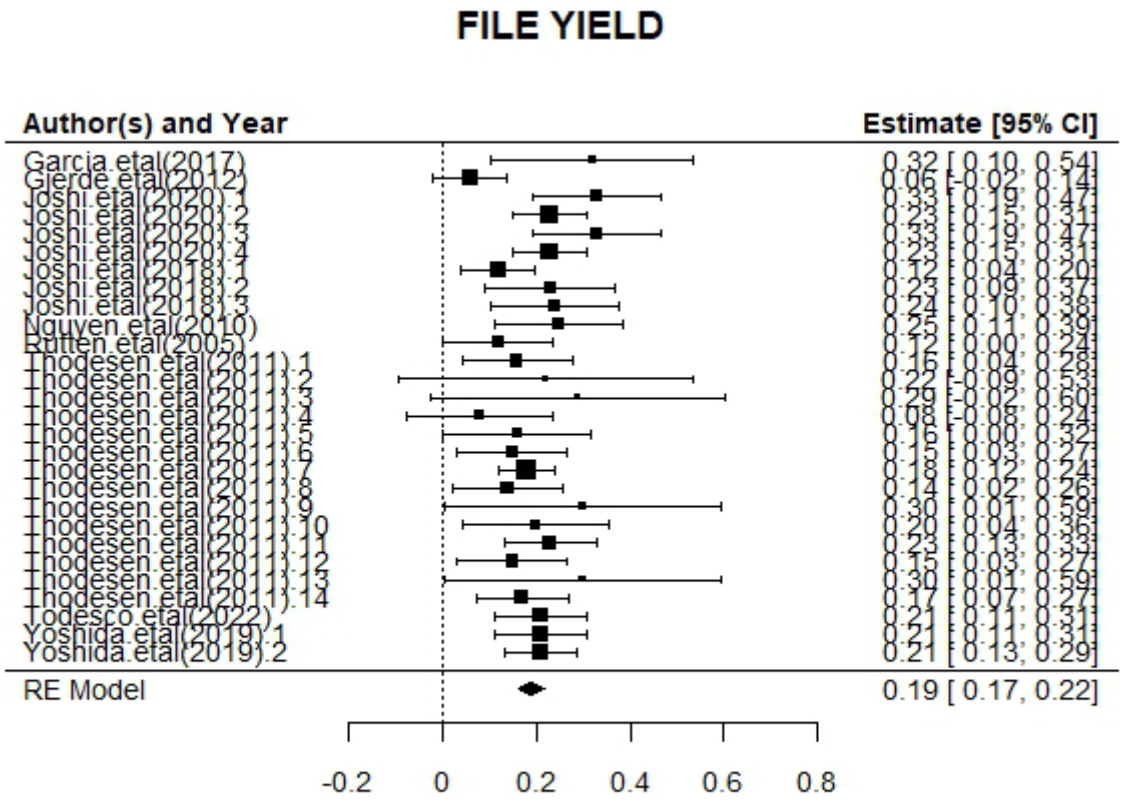

Figure S6. The forest plot of individual studies and the overall outcome for heritability estimates of fillet yield in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

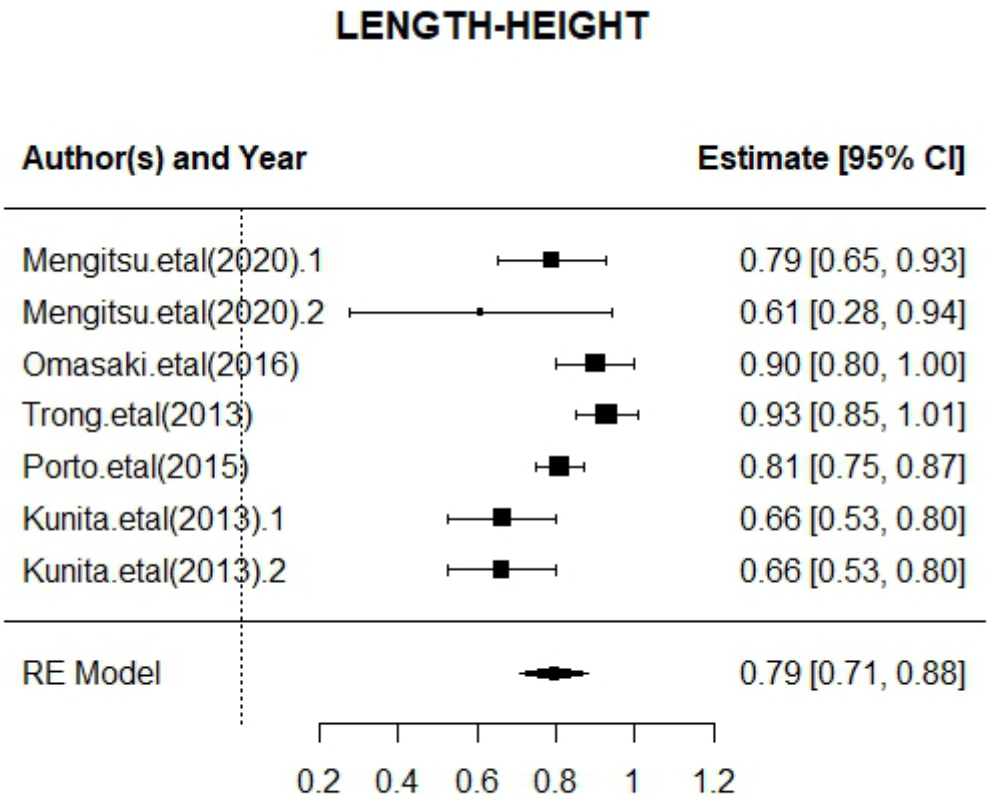

Figure S7. The forest plot of individual studies and the overall outcome for genetic correlation estimates between length and height in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

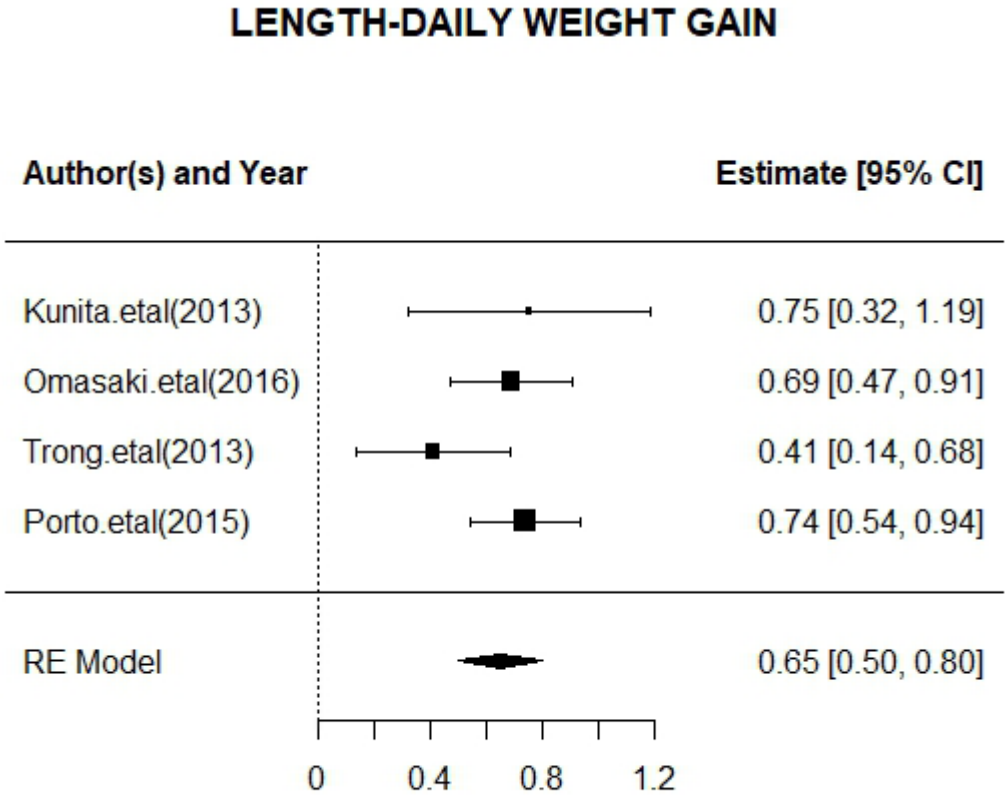

Figure S8. The forest plot of individual studies and the overall outcome for genetic correlation estimates between length and daily weight gain in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

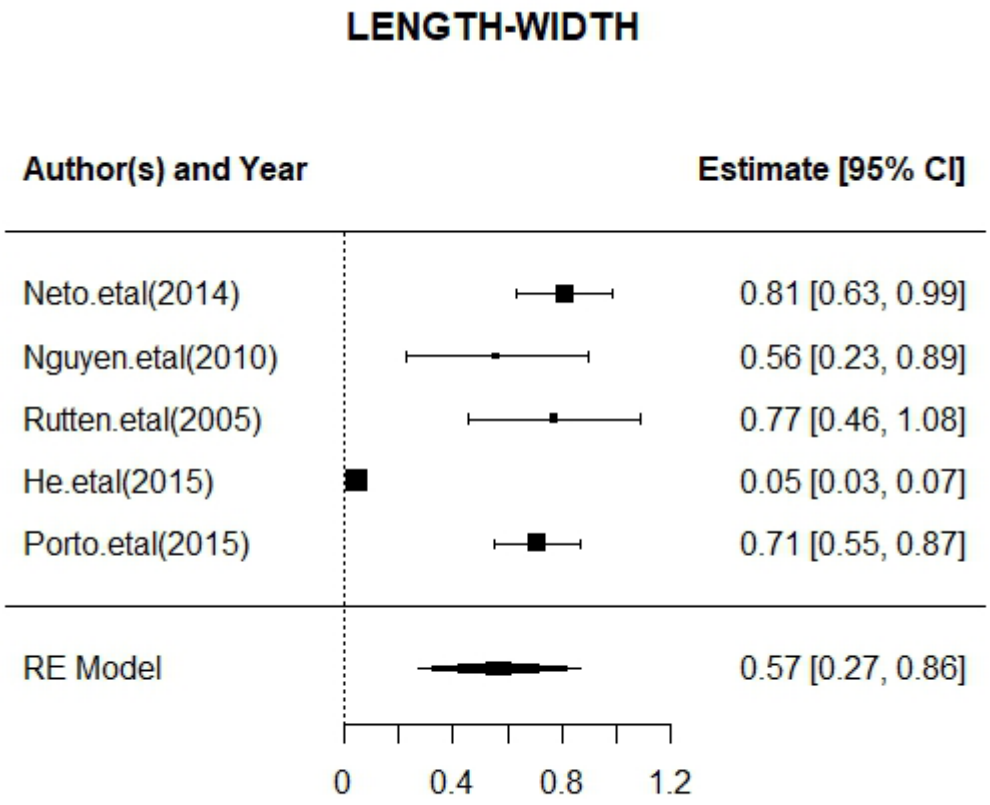

Figure S9. The forest plot of individual studies and the overall outcome for genetic correlation estimates between length and width in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

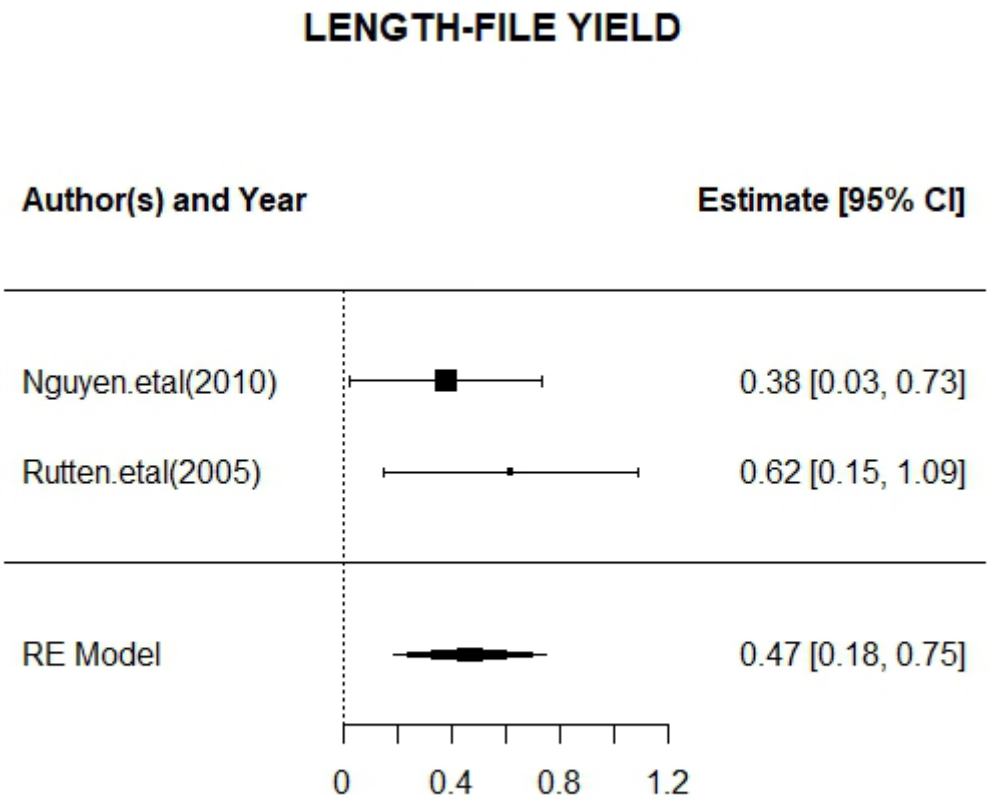

Figure S10. The forest plot of individual studies and the overall outcome for genetic correlation estimates between length and fillet yield in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

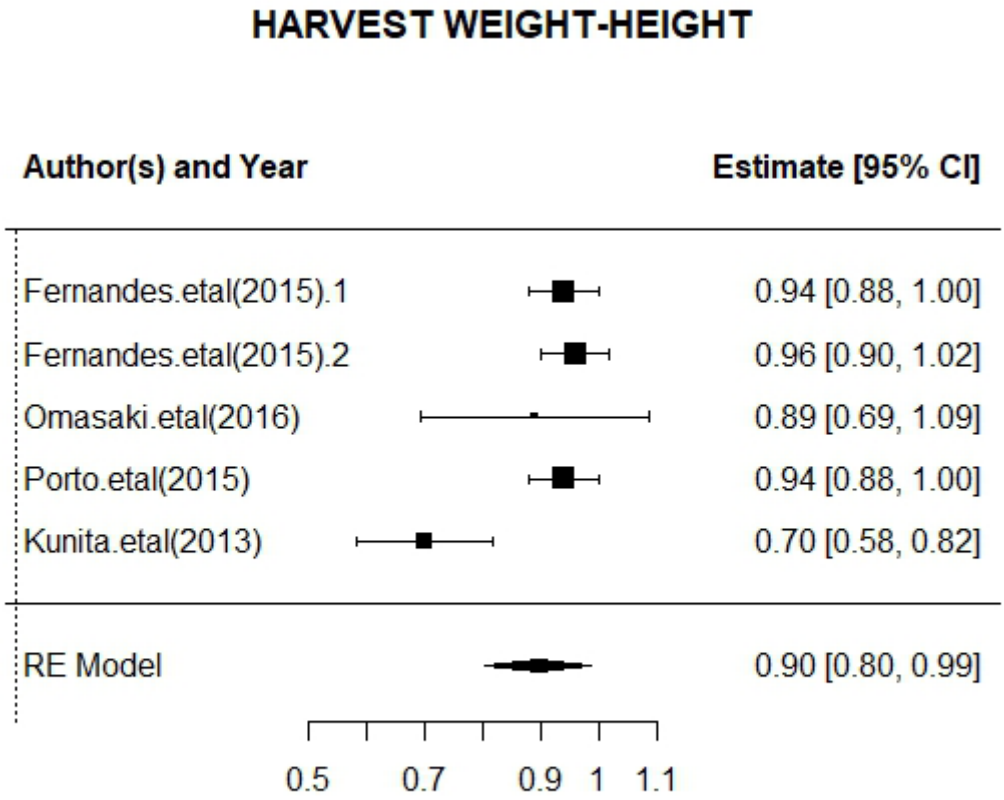

Figure S11. The forest plot of individual studies and the overall outcome for genetic correlation estimates between harvest weight and height in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

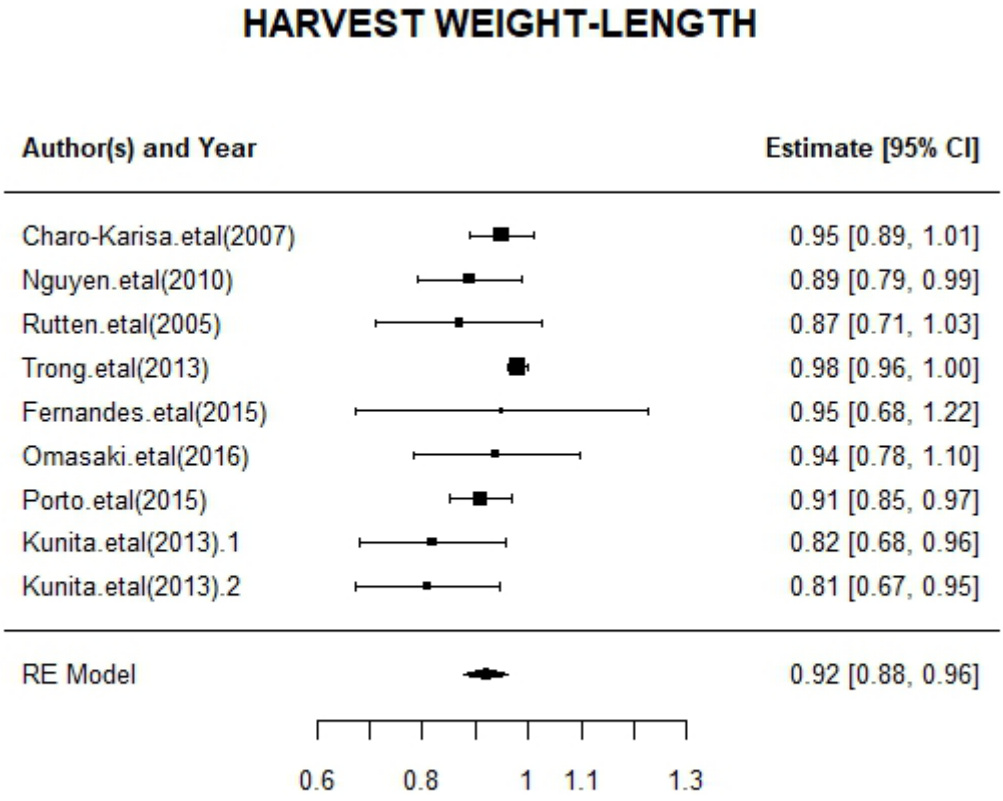

Figure S12. The forest plot of individual studies and the overall outcome for genetic correlation estimates between harvest weight and length in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

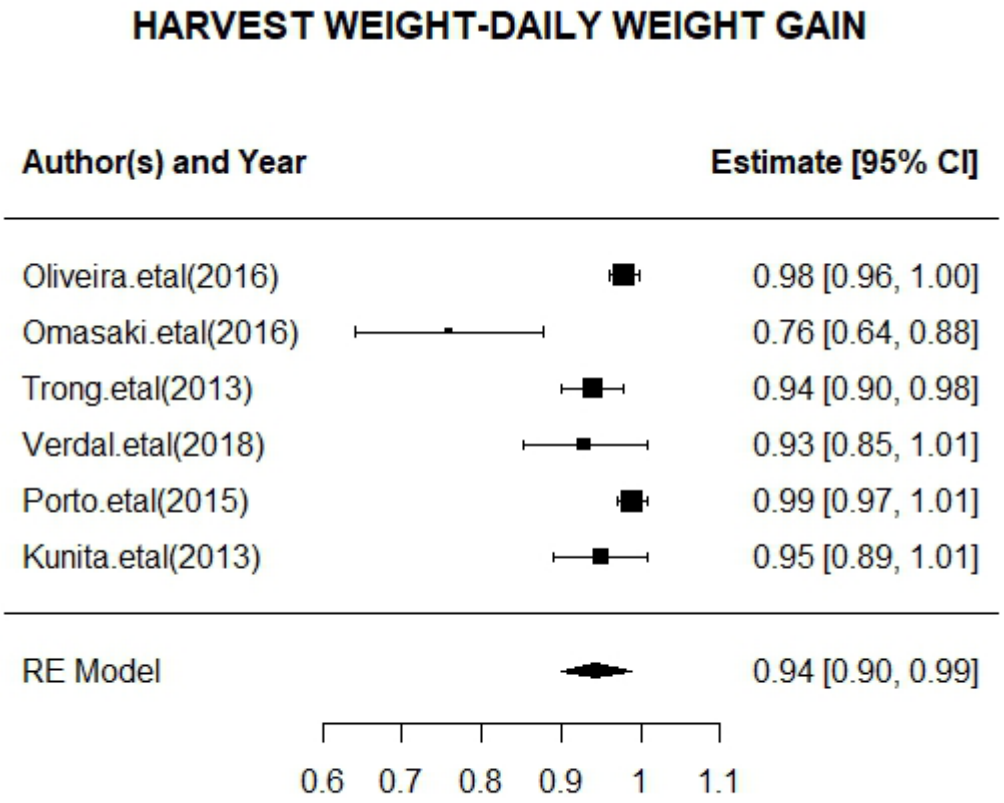

Figure S13. The forest plot of individual studies and the overall outcome for genetic correlation estimates between harvest weight and daily weight gain in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

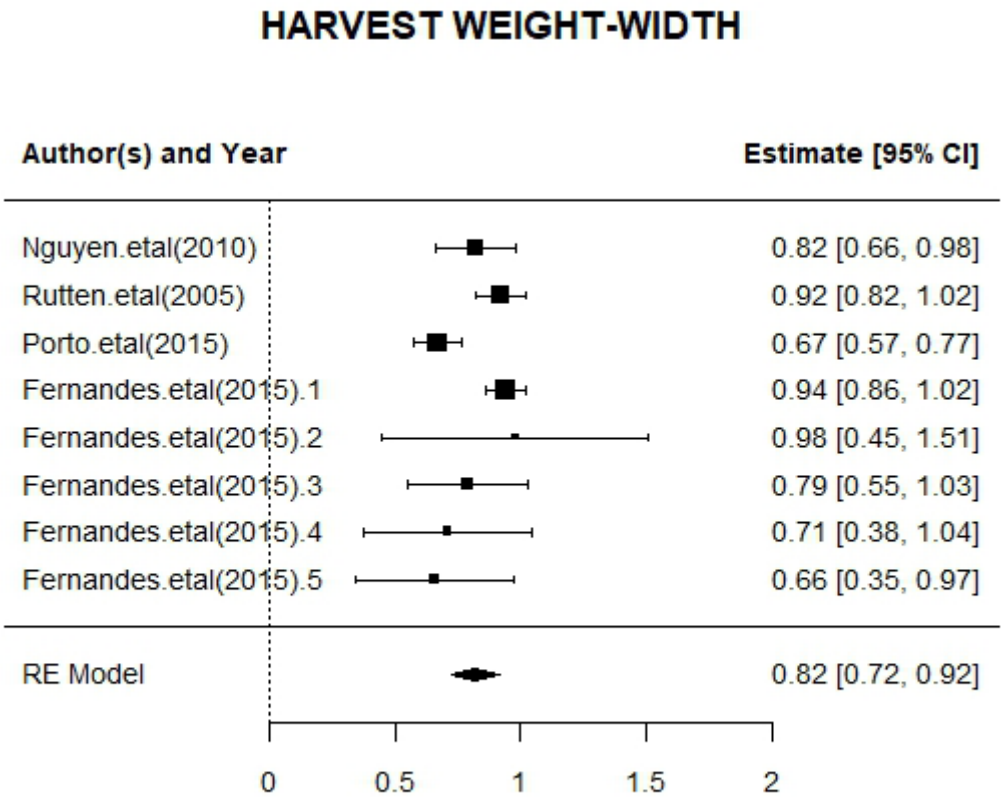

Figure S14. The forest plot of individual studies and the overall outcome for genetic correlation estimates between harvest weight and width in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

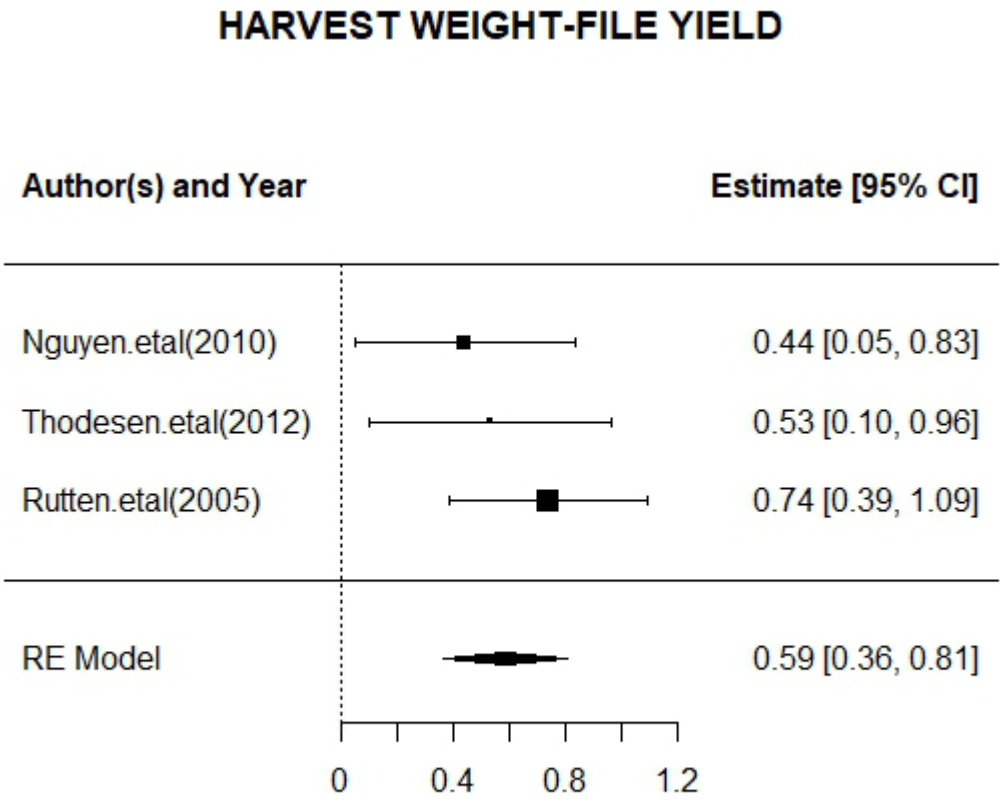

Figure S15. The forest plot of individual studies and the overall outcome for genetic correlation estimates between harvest weight and fillet yield in Nile tilapia (*Oreochromis niloticus*)

https://doi.org/10.17221/6/2024-CJAS

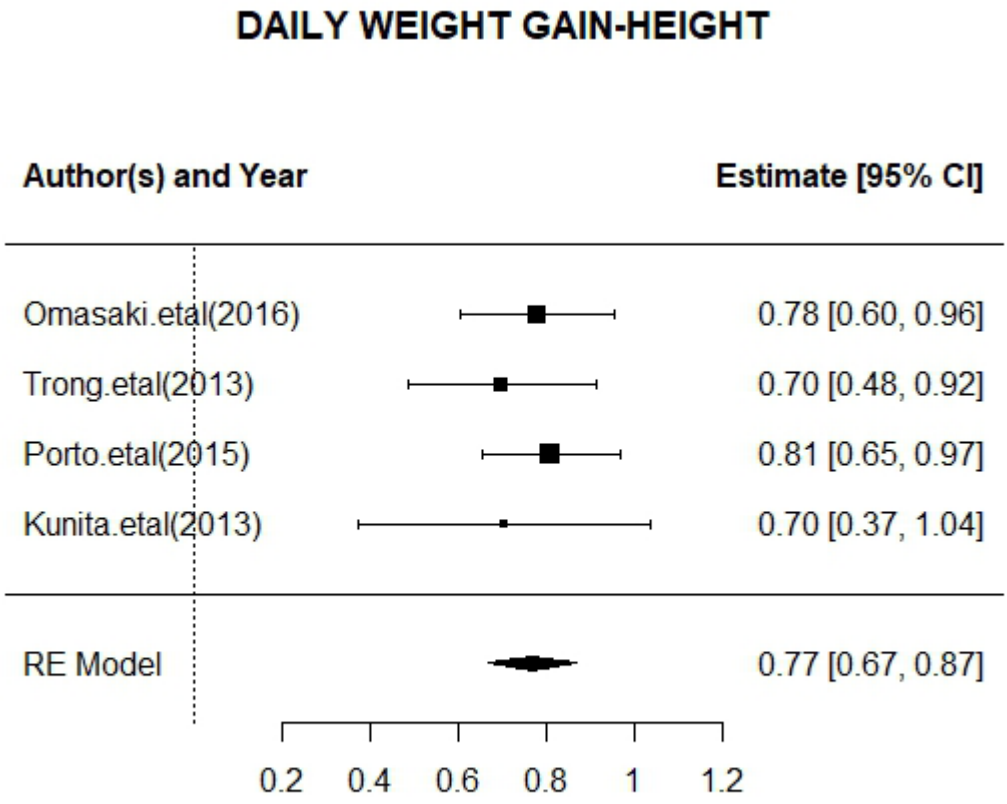

Figure S16. The forest plot of individual studies and the overall outcome for genetic correlation estimates between daily weight gain and height in Nile tilapia (*Oreochromis niloticus*)