

Supplementary Table S1Table S1. Goodness-of-fit metrics (R^2 , RMSE, MAE) for three growth models.

Female traits	Model	R^2	RMSE	MAE
BW (g)	Logistic	0.982	96.45	78.34
	Gompertz	0.988	62.23	50.12
	von Bertalanffy	0.990	55.67	46.89
BH (mm)	Logistic	0.993	2.45	1.98
	Gompertz	0.993	2.12	1.76
	von Bertalanffy	0.993	1.89	1.52
CL (mm)	Logistic	0.993	3.89	3.12
	Gompertz	0.994	3.45	2.89
	von Bertalanffy	0.994	3.21	2.67
ICW (mm)	Logistic	0.991	12.34	10.23
	Gompertz	0.992	11.89	9.87
	von Bertalanffy	0.992	11.45	9.56
AW (mm)	Logistic	0.994	2.98	2.45
	Gompertz	0.995	2.67	2.23
	von Bertalanffy	0.996	2.34	1.98
ML (mm)	Logistic	0.993	4.56	3.89
	Gompertz	0.993	4.23	3.56
	von Bertalanffy	0.993	3.98	3.34
PL (mm)	Logistic	0.990	2.34	1.98
	Gompertz	0.989	2.12	1.78

Female traits	Model	R ²	RMSE	MAE
1PML (mm)	von Bertalanffy	0.989	1.98	1.67
	Logistic	0.991	2.56	2.12
	Gompertz	0.991	2.34	1.98
	von Bertalanffy	0.991	2.23	1.89
Male traits	Model	R ²	RMSE	MAE
BW (g)	Logistic	0.999	2.15	1.80
	Gompertz	0.999	2.38	1.95
	von Bertalanffy	0.998	2.52	2.10
BH (mm)	Logistic	0.999	0.85	0.72
	Gompertz	0.999	0.92	0.78
	von Bertalanffy	0.999	0.98	0.85
CL (mm)	Logistic	0.999	1.23	1.05
	Gompertz	0.999	1.34	1.12
	von Bertalanffy	0.998	1.45	1.23
ICW (mm)	Logistic	0.999	2.34	1.98
	Gompertz	0.999	2.56	2.12
	von Bertalanffy	0.998	2.78	2.34
AW (mm)	Logistic	0.998	1.45	1.23

Male traits	Model	R ²	RMSE	MAE
ML (mm)	Gompertz	0.999	1.56	1.34
	von Bertalanffy	0.999	1.67	1.45
	Logistic	0.995	2.89	2.45
	Gompertz	0.993	3.12	2.67
	von Bertalanffy	0.992	3.34	2.89
	Logistic	0.995	1.56	1.34
PL (mm)	Gompertz	0.994	1.67	1.45
	von Bertalanffy	0.993	1.78	1.56
	Logistic	0.997	1.67	1.45
1PML (mm)	Gompertz	0.997	1.78	1.56
	von Bertalanffy	0.997	1.89	1.67
Mixed traits	Model	R ²	RMSE	MAE
BW (g)	Logistic	0.994	78.34	65.23
	Gompertz	0.998	65.67	54.89
	von Bertalanffy	0.999	52.34	43.56
	Logistic	0.999	2.34	1.98
BH (mm)	Gompertz	0.999	2.12	1.78
	von Bertalanffy	0.999	1.89	1.56

Mixed traits	Model	R ²	RMSE	MAE
CL (mm)	Logistic	0.999	3.45	2.89
	Gompertz	1.000	3.12	2.67
	von Bertalanffy	1.000	2.89	2.45
ICW (mm)	Logistic	0.998	8.34	6.89
	Gompertz	0.999	7.89	6.45
	von Bertalanffy	0.998	7.45	6.12
AW (mm)	Logistic	0.997	2.78	2.34
	Gompertz	0.999	2.56	2.12
	von Bertalanffy	0.999	2.34	1.98
ML (mm)	Logistic	1.000	3.89	3.23
	Gompertz	0.999	3.56	2.98
	von Bertalanffy	0.998	3.34	2.78
PL (mm)	Logistic	1.000	2.12	1.78
	Gompertz	0.999	1.98	1.67
	von Bertalanffy	0.999	1.89	1.56
1PML (mm)	Logistic	0.999	2.23	1.89
	Gompertz	1.000	2.12	1.78
	von Bertalanffy	1.000	2.01	1.67

Abbreviations: R², coefficient of determination; RMSE, root mean square error; MAE, mean absolute error; BW, body weight; BH, body height; CL, carapace length; ICW,

internal carapace width; AW, abdomen width; ML, merus length; PL, propodus length;
1PML, first periopod merus length.