Supplementary Materials

Table S1. Total sample size of fish in the Ganjing River.

Species	Abbreviation	Number		Weight / g		Length range / mm	Weight range / g
		Dry season	Wet season	Dry season	Wet season		
Carassius auratus	GAAU	66	36	5522.7	2887.7	54–293	5.8–255.5
Clarias fuscus	CLFU		1		82.4	265–265	82.4
Coilia ectenes taihuensis	COEC	25	32	521.5	685.9	140–287	9.5–81.0
Ctenopharyngodon idellus	CTID	29	23	13289.3	5873.4	125–431	38.7–1395.2
Culter alburnus	CUAL	12	19	4002.2	5031.7	199–402	96.2–582.3
Culter dabryi	CUDA	40	10	9118.4	2086.1	199–342	107.5–560.6
Culter oxycephaloides	CUOX		30		4661.4	176–346	13.9–541.7
Cultrichthys erythropterus	CUER	1		169.0		246–246	169.0
Cyprinus carpio	GYCA	22	2	2933.8	825.2	143–281	78.9–448.6
Distoechodon tumirostris	DITU	3		1331.7		210–367	173.2–949.7
Erythroculter oxycephaloides	EROX	22	55	3833.5	9545.1	100–320	10.0–527.4
Hemiculter leucisculus	HELE		36		2539.2	81–129	5.8–2023.0
Hypophthalmichthys molitrix	HYMO	41	61	41531.9	64725.3	160–660	64.6–4604.7
Hypophthalmichthys nobilis	HYNO	41	104	44579.5	94714.6	170–645	97.4–3106.0
Luciobarbus capito	LUCI		7		1419.0	252–295	175.3–243.0
Megalobrama skolkovii	MESK	22	32	5033.7	3892.6	120–292	37.3–460.2
Myxocyprinus asiaticus	MYAS		4		849.3	157–253	103.0–330.9
Parabramis pekinensis	PAPE	33	3	4448.6	1025.6	143–521	52.9–681.9
Pelteobaggrus nitidus	PENI		19		280.1	80–194	4.9–61.1
Pelteobagrus fulvidraco	PEFU		1		80.9	175–175	80.9
Pelteobagrus vachelli	PEVA	4	5	456.4	511.4	135–298	24.8–312.4
Saurogobio dabryi	SADA		6		97.3	83–145	5.8–34.4
Siniperca chuatsi	SICH	15	3	3166.7	570.6	170–302	107.3–574.2
Spinibarbus sinensis	SPSI	5		1349.0		164–282	102.8–448.3
Squaliobarbus curriculus	SQCU	20	38	7870.6	15728.3	110–413	21.0–1139.8
Xenocypris argentea	XEAR	3		495.8		207–222	148.1–176.3
Xenocypris microlepis	XEMI		5		326.6	132–160	32.8–94.3
Total		406	532	149908.9	218439.7		

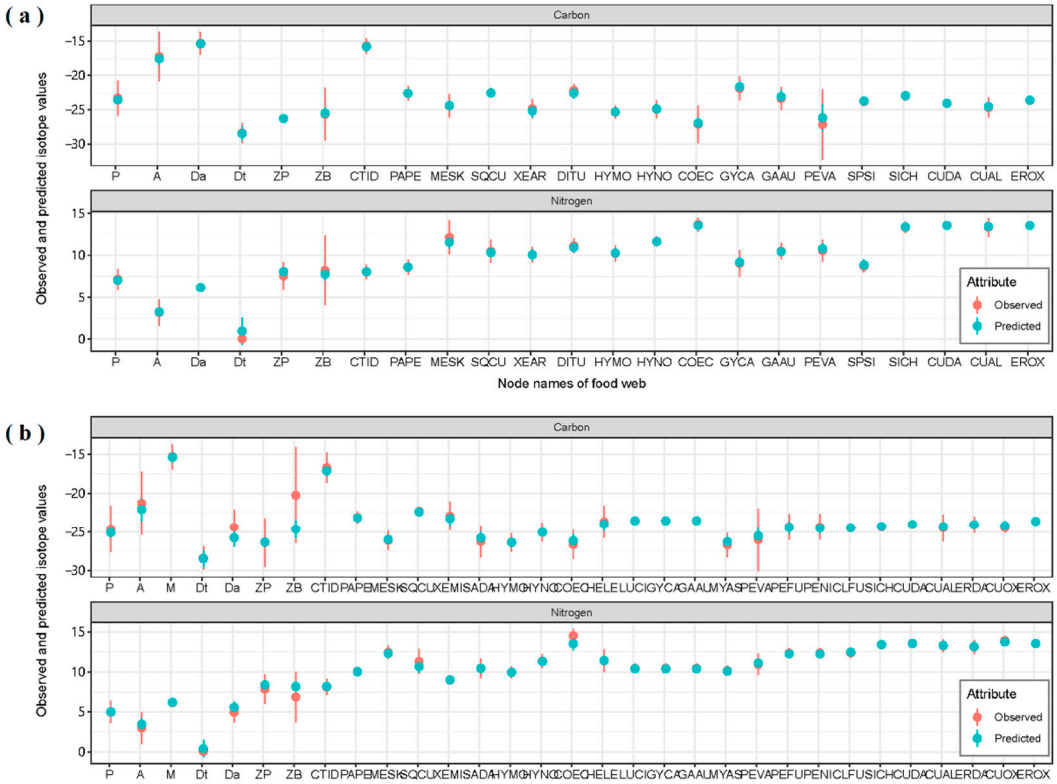

Figure S1. Observed and predicted isotope values distribution of carbon and nitrogen in BIMM. (**a**) dry season. (**b**) wet season. There was no significant difference between the modeling predicted values of carbon and nitrogen isotopes and the observed values of samples, and the coincidence degree between two data was high, which indicated that the prediction effect of the model was very well. See Figure 2 for node names.