Supplementary Materials

The following supporting information can be downloaded at https://www. Table S1: Results of discriminant analysis for 19 element ratios in the muscle of *H. nobilis* from three stations in the Yangtze River basin; Table S2: Euclidean distance among 4 discriminant elements ratios in the muscles of *H. nobilis* from three stations in the Yangtze River basin. Figure S1: Scatter plot of scores based on the first two canonical discriminant functions for the 19 elements ratios in the muscles of *H. nobilis* from three stations in the Yangtze River basin; Figure S2: Clustering dendrogram for 4 discriminant elements ratios in the muscles of *H. nobilis* from three stations in the Yangtze River basin. Samples from AQ station include AQ group and PC-AQ group.

Table S1. Results of discriminant analysis for 19 element ratios in the muscle of *H. nobilis* from three stations in the Yangtze River basin.

Methods	Groups	Prediction Category			Discriminant Accuracy (%)	Comprehensive Discrimination Rate (%)
		WH	AQ	TH		
Stepwise Discrimination	WH	2	0	0	100.0	100.0
	AQ	0	5	0	100.0	
	TH	0	0	5	100.0	
Cross Verification	WH	2	0	0	100.0	100.0
	AQ	0	5	0	100.0	
	TH	0	0	5	100.0	

Table S2. Euclidean distance among 4 discriminant elements ratios in the muscles of *H. nobilis* from three stations in the Yangtze River basin.

Stations	Euclidean Distance		
	1	2	3
1 WH		0.042	5.005
2 AQ	0.042		4.891
3 TH	5.005	4.891	

Note: Samples from AQ station include AQ group and PC-AQ group.

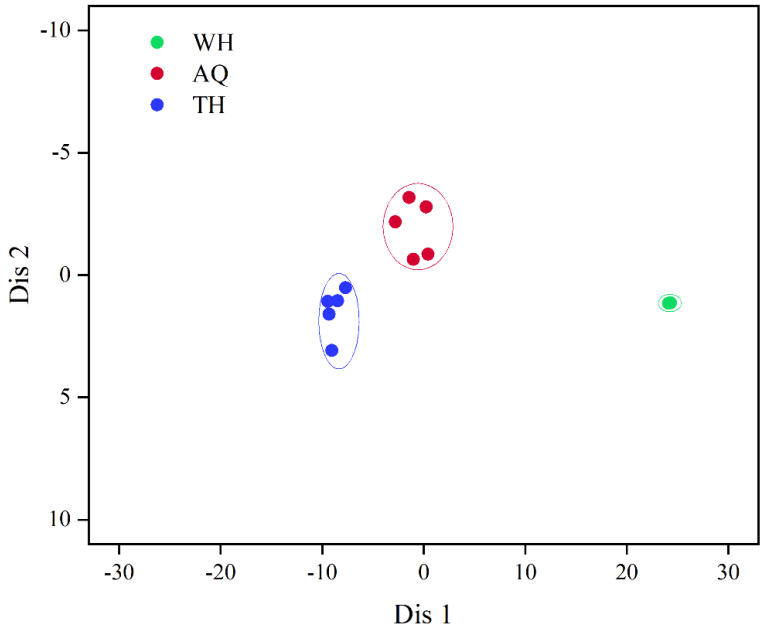

Figure S1. Scatter plot of scores based on the first two canonical discriminant functions for the 19 elements ratios in the muscles of *H. nobilis* from three stations in the Yangtze River basin.

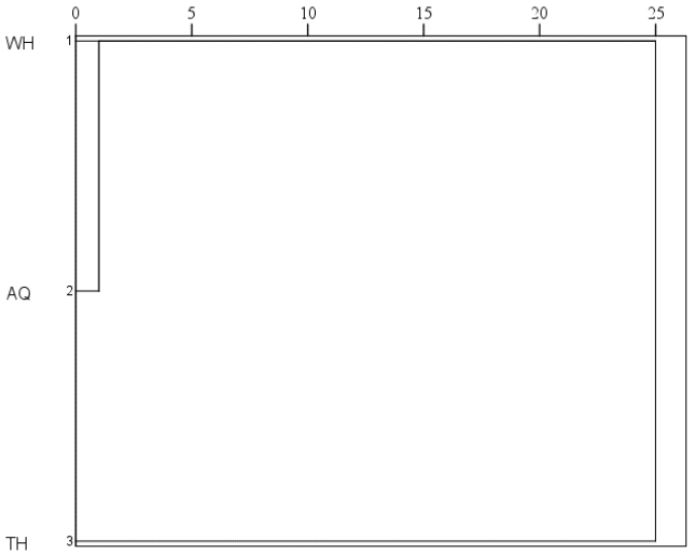

Figure S2. Clustering dendrogram for 4 discriminant elements ratios in the muscles of *H. nobilis* from three stations in the Yangtze River basin. Samples from AQ station include AQ group and PC-AQ group.