Table S1 Cluster information of keyword co-occurrence analysis. The number of parentheses represents the log-likelihood ratio of terms from keywords. The top terms are significant at 0.05 level.

Cluster ID	Size	Silhouette	Average Year	Top terms (log-likelihood ratio)
0	48	0.647	2009	great lakes (20.24, 1.0E-4); coastal wetlands (16.04, 1.0E-4); coastal wetland (14.41, 0.001); habitat (11.96, 0.001); populations (9.6, 0.005)
1	46	0.702	2001	alternative stable states (29.9, 1.0E-4); shallow lakes (27.51, 1.0E-4); biomanipulation (26.53, 1.0E-4); phytoplankton (17.75, 1.0E-4); zooplankton (17.7, 1.0E-4)
2	45	0.642	2010	photosynthesis (9.72, 0.005); v (9.34, 0.005); sediment microenvironment (9.34, 0.005); sediment phosphorus (9.34, 0.005); microcystis aeruginosa (9.34, 0.005)
3	43	0.692	2009	myriophyllum spicatum (29.39, 1.0E-4); clonal diversity (9.43, 0.005); hydraulic force (9.43, 0.005); invasive species (8.43, 0.005); biomanipulation (8.34, 0.005)
4	43	0.766	2012	vallisneria natans (18.62, 1.0E-4); competition (16.76, 1.0E-4); disturbance (12.05, 0.001); facilitation (8.88, 0.005); morphological characteristics (8.76, 0.005)
5	36	0.731	2015	n-alkanes (18.9, 1.0E-4); stable isotope (16.18, 1.0E-4); limiting factors (10.78, 0.005); lake level (10.78, 0.005); p-aq (10.78, 0.005)
6	30	0.789	2009	water clarity (13.87, 0.001); biological control (12.27, 0.001); non-native (12.27, 0.001); common carp (11.88, 0.001); hydrology (11.88, 0.001)
7	27	0.788	2009	seed bank (22.06, 1.0E-4); softwater lakes (13.47, 0.001); dispersal (9.72, 0.005); germination (8.06, 0.005); conservation biology (6.73, 0.01)
8	24	0.88	2005	plants (9.72, 0.005); bacterial community (6.82, 0.01); organic matter (6.08, 0.05); brackish lakes (6.08, 0.05); holocene (6.08, 0.05)

9	22	0.852	2007	remote sensing (16.2, 1.0E-4); submerged aquatic vegetation (sav) (13.31, 0.001); submerged aquatic vegetation (13.14, 0.001); long-term trends (11.79, 0.001); removal efficiency (11.79, 0.001)
10	20	0.811	2015	ecological status (15.87, 1.0E-4); soluble carbohydrate (13.31, 0.001); water depth (12.47, 0.001); aquatic macrophyte (9.76, 0.005); characeae (9.56, 0.005)
11	20	0.772	2005	ecological restoration (17.57, 1.0E-4); lake restoration (14.35, 0.001); restoration (7.43, 0.01); aquaculture (6.03, 0.05); tropical limnology (5.66, 0.05)
12	11	0.841	2012	biomass (8.07, 0.005); anaerobic processes (7.17, 0.01); transparency thresholds (7.17, 0.01); nutrient removal rate (7.17, 0.01); biodegradation (7.17, 0.01)

Table S2 Cluster information of reference co-citation analysis. The number of parentheses represents the log-likelihood ratio of terms from keywords. The top terms are significant at 0.05 level.

Cluster ID	Size	Silhouette	Average Year	Top terms (log-likelihood ratio)
0	94	0.785	2000	biomanipulation (13.15, 0.001); submerged macrophyte (12.48, 0.001); lake restoration (9.38, 0.005); nitrogen (8.89, 0.005); phosphorus (8.47, 0.005)
1	81	0.869	2010	omnivore (19.1, 1.0E-4); phoslock (r) (17.8, 1.0E-4); soluble carbohydrate (16.78, 1.0E-4); macrophytes (12.27, 0.001); vallisneria natans (12.21, 0.001)
2	76	0.823	2007	biomanipulation (10.31, 0.005); zooplankton (8.55, 0.005); general ocean turbulence model (8.53, 0.005); ecosystem restoration (8.53, 0.005); fish (7.53, 0.01)
3	68	0.796	1999	nutrient removal (4.89, 0.05); littoral zone (4.89, 0.05); biomonitoring (4.89, 0.05); chara (4.54, 0.05); volatile compound (4.22, 0.05)
4	68	0.733	1996	zooplankton community (5.68, 0.05); refuge (5.68, 0.05); holocene (4.64, 0.05); assessment (4.64, 0.05); size-dependent feeding (4.64, 0.05)
5	68	0.881	2006	myriophyllum spicatum (10.56, 0.005); phytoplankton (10.38, 0.005); maifanite (9.85, 0.005); life history (9.85, 0.005); eichhornia crassipes (9.85, 0.005)
6	66	0.777	1992	zooplankton (12, 0.001); biomanipulation (10.62, 0.005); fish (9.44, 0.005); top-down control (5.87, 0.05); submerged macrophytes (5.57, 0.05)
7	61	0.834	2003	ecological status (10.95, 0.001); historical changes (9.99, 0.005); wfd (9.99, 0.005); species richness (9.05, 0.005); biomanipulation (8.42, 0.005)
8	38	0.951	1993	diatoms (32.33, 1.0E-4); radiometric dating (8.77, 0.005); transfer function (8.77, 0.005); sediment accumulation tales (8.77, 0.005); geochemistry (8.77, 0.005)
9	38	0.792	1997	shallow lakes (6.35, 0.05); paleolimnology (6.06, 0.05); chironomids (5.35, 0.05); cattail (5.3, 0.05); wind (5.3, 0.05)

10	33	0.819	1990	aquatic weeds (6.9, 0.01); waterbirds (6.7, 0.01); hydrilla (6.7, 0.01); light (6.7, 0.01); treatment wetlands (6.7, 0.01)
11	29	0.957	2007	cyprinus carpio (12.35, 0.001); common carp (12.35, 0.001); non-native (12.35, 0.001); bioturbation (10.5, 0.005); water clarity (9.35, 0.005)
12	27	0.907	1985	clear water (10.36, 0.005); benthic microbes (10.09, 0.005); gross release (7.34, 0.01); water regime (7.34, 0.01); enclosure experiments (7.34, 0.01)
13	25	0.935	2000	turbid (10.93, 0.001); clear-water state (7.91, 0.005); ponds (7.41, 0.01); eutrophic (7.41, 0.01); cyanobacteria (5.98, 0.05)
14	24	0.964	1997	root to shoot (19.38, 1.0E-4); environmental drivers (9.66, 0.005); gulf of mexico (9.66, 0.005); estuary (9.66, 0.005); relative yield (9.66, 0.005)
15	20	0.992	2002	fatty acids (30.54, 1.0E-4); n-alkanes (20.27, 1.0E-4); tibetan plateau (20.27, 1.0E-4); algae (11.96, 0.001); fuxian lake (10.09, 0.005)