

**Table S1** Pearson correlations between each PAHsin spring at Balitai

		NAP	ACY	FLU	BghiP	PHE	ANT	FLUA	BaA	CHR	PYE	BaP	BkFA
NAP	correlation	1	.942	.933	.549	.919	.866	.923	.584	.591	.757	.398	.209
	Sig.(2-tailed)		.218	.234	.630	.258	.334	.251	.603	.597	.453	.739	.866
	N	3	3	3	3	3	3	3	3	3	3	3	3
ACY	correlation	.942	1	1.000**	.194	.999**	.990**	.661	.180	.150	.482	.362	.686
	Sig.(2-tailed)	.218		.000	.713	.000	.000	.153	.733	.776	.333	.481	.133
	N	3	6	6	6	6	6	6	6	6	6	6	6
FLU	correlation	.933	1.000**	1	.202	.999**	.992**	.664	.188	.157	.489	.371	.694
	Sig.(2-tailed)	.234	.000		.702	.000	.000	.151	.722	.766	.325	.468	.126
	N	3	6	6	6	6	6	6	6	6	6	6	6
BghiP	correlation	.549	.194	.202	1	.226	.170	.843*	.990**	.996**	.952**	.963**	.492
	Sig.(2-tailed)	.630	.713	.702		.666	.748	.035	.000	.000	.003	.002	.322
	N	3	6	6	6	6	6	6	6	6	6	6	6
PHE	correlation	.919	.999**	.999**	.226	1	.993**	.678	.211	.181	.509	.399	.716
	Sig.(2-tailed)	.258	.000	.000	.666		.000	.139	.688	.731	.302	.433	.109
	N	3	6	6	6	6	6	6	6	6	6	6	6
ANT	correlation	.866	.990**	.992**	.170	.993**	1	.614	.155	.119	.453	.364	.729
	Sig.(2-tailed)	.334	.000	.000	.748	.000		.195	.769	.822	.367	.479	.100
	N	3	6	6	6	6	6	6	6	6	6	6	6
FLUA	correlation	.923	.661	.664	.843*	.678	.614	1	.819*	.829*	.961**	.877*	.685
	Sig.(2-tailed)	.251	.153	.151	.035	.139	.195		.046	.041	.002	.022	.133
	N	3	6	6	6	6	6	6	6	6	6	6	6
BaA	correlation	.584	.180	.188	.990**	.211	.155	.819*	1	.980**	.937**	.941**	.415
	Sig.(2-tailed)	.603	.733	.722	.000	.688	.769	.046		.001	.006	.005	.413
	N	3	6	6	6	6	6	6	6	6	6	6	6
CHR	correlation	.591	.150	.157	.996**	.181	.119	.829*	.980**	1	.938**	.946**	.464
	Sig.(2-tailed)	.597	.776	.766	.000	.731	.822	.041	.001		.006	.004	.354
	N	3	6	6	6	6	6	6	6	6	6	6	6
PYE	correlation	.757	.482	.489	.952**	.509	.453	.961**	.937**	.938**	1	.965**	.640
	Sig.(2-tailed)	.453	.333	.325	.003	.302	.367	.002	.006	.006		.002	.171
	N	3	6	6	6	6	6	6	6	6	6	6	6
BaP	correlation	.398	.362	.371	.963**	.399	.364	.877*	.941**	.946**	.965**	1	.694
	Sig.(2-tailed)	.739	.481	.468	.002	.433	.479	.022	.005	.004	.002		.126
	N	3	6	6	6	6	6	6	6	6	6	6	6
BkFA	correlation	.209	.686	.694	.492	.716	.729	.685	.415	.464	.640	.694	1
	Sig.(2-tailed)	.866	.133	.126	.322	.109	.100	.133	.413	.354	.171	.126	
	N	3	6	6	6	6	6	6	6	6	6	6	6

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05level (2-tailed).

**Table S2** Pearson correlations between each PAHs in spring at Haiguangsi

		NAP	ACY	FLU	BghiP	PHE	ANT	FLUA	BaA	CHR	PYE	BaP	BkFA
NAP	correlation	1	.437	.437	-.403	.339	.420	-.828*	-.615	-.683	-.855*	-.066	-.505
	Sig. (2-tailed)		.387	.387	.428	.511	.407	.042	.193	.135	.030	.901	.307
	N	6	6	6	6	6	6	6	6	6	6	6	6
ACY	correlation	.437	1	.979**	-.713	.970**	.980**	-.017	-.465	-.602	-.383	.547	-.678
	Sig. (2-tailed)	.387		.001	.112	.001	.001	.974	.352	.206	.453	.261	.139
	N	6	6	6	6	6	6	6	6	6	6	6	6
FLU	correlation	.437	.979**	1	-.622	.970**	.935**	.052	-.365	-.500	-.286	.617	-.582
	Sig. (2-tailed)	.387	.001		.187	.001	.006	.922	.476	.313	.583	.192	.225
	N	6	6	6	6	6	6	6	6	6	6	6	6
BghiP	correlation	-.403	-.713	-.622	1	-.550	-.657	.218	.900°	.915°	.547	.054	.860°
	Sig. (2-tailed)	.428	.112	.187		.259	.156	.678	.015	.011	.261	.920	.028
	N	6	6	6	6	6	6	6	6	6	6	6	6
PHE	correlation	.339	.970**	.970**	-.550	1	.958**	.084	-.273	-.420	-.224	.732	-.593
	Sig. (2-tailed)	.511	.001	.001	.259		.003	.874	.600	.407	.670	.098	.215
	N	6	6	6	6	6	6	6	6	6	6	6	6
ANT	correlation	.420	.980**	.935**	-.657	.958**	1	-.060	-.420	-.576	-.432	.534	-.648
	Sig. (2-tailed)	.407	.001	.006	.156	.003		.910	.408	.232	.392	.275	.164
	N	6	6	6	6	6	6	6	6	6	6	6	6
FLUA	correlation	-.828*	-.017	.052	.218	.084	-.060	1	.581	.590	.864*	.375	.423
	Sig. (2-tailed)	.042	.974	.922	.678	.874	.910		.226	.217	.026	.464	.404
	N	6	6	6	6	6	6	6	6	6	6	6	6
BaA	correlation	-.615	-.465	-.365	.900°	-.273	-.420	.581	1	.979**	.757	.321	.845*
	Sig. (2-tailed)	.193	.352	.476	.015	.600	.408	.226		.001	.081	.536	.034
	N	6	6	6	6	6	6	6	6	6	6	6	6
CHR	correlation	-.683	-.602	-.500	.915°	-.420	-.576	.590	.979**	1	.822*	.216	.864*
	Sig. (2-tailed)	.135	.206	.313	.011	.407	.232	.217	.001		.045	.681	.027
	N	6	6	6	6	6	6	6	6	6	6	6	6
PYE	correlation	-.855*	-.383	-.286	.547	-.224	-.432	.864*	.757	.822°	1	.349	.564
	Sig. (2-tailed)	.030	.453	.583	.261	.670	.392	.026	.081	.045		.497	.244
	N	6	6	6	6	6	6	6	6	6	6	6	6
BaP	correlation	-.066	.547	.617	.054	.732	.534	.375	.321	.216	.349	1	-.186
	Sig. (2-tailed)	.901	.261	.192	.920	.098	.275	.464	.536	.681	.497		.725
	N	6	6	6	6	6	6	6	6	6	6	6	6
BkFA	correlation	-.505	-.678	-.582	.860°	-.593	-.648	.423	.845*	.864°	.564	-.186	1
	Sig. (2-tailed)	.307	.139	.225	.028	.215	.164	.404	.034	.027	.244	.725	
	N	6	6	6	6	6	6	6	6	6	6	6	6

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05level (2-tailed).

**Table S3** Pearson correlations between each PAHs in autumn season at Balitai

		BbFA	IcdP	CHR	BaA	BkFA	BaP	BghiP	NAP
BbFA	correlation	1	.787	.969**	.963**	.458	.977**	.992**	.525
	Sig.(2-tailed)		.114	.007	.009	.438	.004	.001	.364
	N	5	5	5	5	5	5	5	5
IcdP	correlation	.787	1	.901*	.898*	.879*	.671	.813	.927
	Sig.(2-tailed)	.114		.037	.038	.050	.215	.095	.023
	N	5	5	5	5	5	5	5	5
CHR	correlation	.969**	.901*	1	.995**	.613	.901*	.985**	.689
	Sig.(2-tailed)	.007	.037		.000	.272	.037	.002	.198
	N	5	5	5	5	5	5	5	5
BaA	correlation	.963**	.898*	.995**	1	.634	.903*	.977**	.705
	Sig.(2-tailed)	.009	.038	.000		.251	.036	.004	.184
	N	5	5	5	5	5	5	5	5
BkFA	correlation	.458	.879*	.613	.634	1	.355	.472	.988**
	Sig.(2-tailed)	.438	.050	.272	.251		.558	.422	.002
	N	5	5	5	5	5	5	5	5
BaP	correlation	.977**	.671	.901*	.903*	.355	1	.948*	.402
	Sig.(2-tailed)	.004	.215	.037	.036	.558		.014	.502
	N	5	5	5	5	5	5	5	5
BghiP	correlation	.992**	.813	.985**	.977**	.472	.948*	1	.554
	Sig.(2-tailed)	.001	.095	.002	.004	.422	.014		.332
	N	5	5	5	5	5	5	5	5
NAP	correlation	.525	.927*	.689	.705	.988**	.402	.554	1
	Sig.(2-tailed)	.364	.023	.198	.184	.002	.502	.332	
	N	5	5	5	5	5	5	5	5

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05level (2-tailed).

**Table S4** Pearson correlations between each PAHsin autumn season at Haiguangsi

	BbFA	IcdP	CHR	BaA	BkFA	BaP	BghiP	NAP
BbFA correlation	1	.933**	.936**	.998**	.999**	.805	.997**	.990**
Sig. (2-tailed)		.006	.006	.000	.000	.053	.000	.000
N	6	6	6	6	6	6	6	6
IcdP correlation	.933**	1	.977**	.940**	.938**	.905*	.947**	.930**
Sig. (2-tailed)	.006		.001	.005	.006	.013	.004	.007
N	6	6	6	6	6	6	6	6
CHR correlation	.936**	.977**	1	.947**	.945**	.938**	.955**	.951**
Sig. (2-tailed)	.006	.001		.004	.004	.006	.003	.004
N	6	6	6	6	6	6	6	6
BaA correlation	.998**	.940**	.947**	1	.999**	.830*	.998**	.991**
Sig. (2-tailed)	.000	.005	.004		.000	.041	.000	.000
N	6	6	6	6	6	6	6	6
BkFA correlation	.999**	.938**	.945**	.999**	1	.817*	.997**	.988**
Sig. (2-tailed)	.000	.006	.004	.000		.047	.000	.000
N	6	6	6	6	6	6	6	6
BaP correlation	.805	.905*	.938**	.830*	.817*	1	.849*	.859*
Sig. (2-tailed)	.053	.013	.006	.041	.047		.033	.029
N	6	6	6	6	6	6	6	6
BghiP correlation	.997**	.947**	.955**	.998**	.997**	.849*	1	.996**
Sig. (2-tailed)	.000	.004	.003	.000	.000	.033		.000
N	6	6	6	6	6	6	6	6
NAP correlation	.990**	.930**	.951**	.991**	.988**	.859*	.996**	1
Sig. (2-tailed)	.000	.007	.004	.000	.000	.029	.000	
N	6	6	6	6	6	6	6	6

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05level (2-tailed).