A. Correlation analyses between larval growth and bioconversion performances and chemical quality of the substrates.

	DM substrate	VS substrate	Ash substrate	Lipids substrate	Nitrogen substrate	Carbon substrate	Sulphur substrate	C/N substrate	Energy substrate	Protein substrate	NFC substrate	Hemicell. substrate	Cellulose substrate	Lignin substrate
Larval weight	0.61 P=0.015	0.85 P=0.000	-0.85 P=0.000	0.86 P=0.000	0.60 P=0.017	0.85 P=0.000	-0.90 P=0.000	0.56 P=0.028	0.79 P=0.000	0.24 P=0.383	0.75 P=0.001	0.50 P=0.06	0.64 P=0.01	-0.72 P=0.003
Frass weight	0.31 P=0.335	0.5 P=0.099	-0.5 P=0.099	0.62 P=0.032	0.6 P=0.041	0.63 P=0.029	-0.57 P=0.052	0.58 P=0.049	0.48 P=0.117	-0.36 P=0.248	0.61 P=0.036	0.14 P=0.664	0.23 P=0.469	-0.35 P=0.269
DM insects	0.7 P=0.011	0.84 P=0.001	-0.84 P=0.001	0.94 P=0	0.83 P=0.001	0.94 P=0	-0.92 P=0	0.31 P=0.319	0.76 P=0.004	-0.38 P=0.226	0.75 P=0.005	0.64 P=0.024	0.45 P=0.138	-0.55 P=0.067
Survival	-0.54 P=0.07	-0.5 P=0.099	0.5 P=0.099	-0.54 P=0.068	-0.32 P=0.312	-0.54 P=0.072	0.52 P=0.084	-0.79 P=0.002	-0.43 P=0.161	0.52 P=0.084	-0.5 P=0.099	-0.29 P=0.364	-0.51 P=0.089	0.52 P=0.084
AF	0.58 P=0.048	0.6 P=0.039	-0.6 P=0.039	0.45 P=0.138	0.32 P=0.308	0.44 P=0.152	-0.55 P=0.067	-0.05 P=0.88	0.57 P=0.055	0.1 P=0.762	0.41 P=0.183	0.35 P=0.265	0.05 P=0.88	-0.25 P=0.43
FCR	0.07 P=0.829	-0.33 P=0.297	0.33 P=0.297	-0.47 P=0.124	-0.48 P=0.118	-0.5 P=0.101	0.54 P=0.071	-0.29 P=0.354	-0.24 P=0.443	0.2 P=0.527	-0.26 P=0.417	-0.43 P=0.167	-0.34 P=0.286	0.24 P=0.457
BCR	0.19 P=0.557	0.54 P=0.071	-0.54 P=0.071	0.69 P=0.014	0.69 P=0.014	0.71 P=0.009	-0.69 P=0.013	0.06 P=0.863	0.45 P=0.145	-0.17 P=0.602	0.35 P=0.265	0.68 P=0.015	0.39 P=0.208	-0.34 P=0.276
Substrate reduction	0.28 P=0.379	0.24 P=0.457	-0.24 P=0.457	0.13 P=0.681	-0.01 P=0.983	0.12 P=0.713	-0.30 P=0.342	-0.24 P=0.457	0.22 P=0.499	0.25 P=0.430	0.07 P=0.829	0.17 P=0.602	-0.17 P=0.587	0.04 P=0.897

B. Correlation analyses between larval proximate composition and chemical quality of the substrates.

	DM substrate	VS substrate	Ash substrate	Lipids substrate	Nitrogen substrate	Carbon substrate	Sulphur substrate	C/N substrate	Energy substrate	Protein substrate	NFC substrate	Hemicell. substrate	Cellulose substrate	Lignin substrate
DM insects	0.70 P=0.011	0.84 P=0.001	-0.84 P=0.001	0.94 P=0.000	0.83 P=0.001	0.94 P=0.000	-0.92 P=0.000	0.31 P=0.319	0.76 P=0.004	-0.38 P=0.226	0.75 P=0.005	0.64 P=0.024	0.45 P=0.138	-0.55 P=0.067
VS insects	0.73 P=0.007	0.91 P=0.000	-0.91 P=0.000	0.94 P=0.000	0.90 P=0.000	0.97 P=0.000	-0.91 P=0.000	0.24 P=0.443	0.87 P=0.000	-0.32 P=0.308	0.83 P=0.001	0.64 P=0.024	0.46 P=0.131	-0.62 P=0.031
Ash insects	-0.73 P=0.007	-0.91 P=0.000	0.91 P=0.000	-0.94 P=0.000	-0.90 P=0.000	-0.97 P=0.000	0.91 P=0.000	-0.24 P=0.443	-0.87 P=0.000	0.32 P=0.308	-0.83 P=0.001	-0.64 P=0.024	-0.46 P=0.131	0.62 P=0.031
Lipids insects	0.42 P=0.175	0.82 P=0.001	-0.82 P=0.001	0.87 P=0.000	0.73 P=0.007	0.87 P=0.000	-0.94 P=0.000	0.31 P=0.331	0.71 P=0.009	-0.32 P=0.308	0.64 P=0.024	0.62 P=0.031	0.43 P=0.167	-0.53 P=0.075
NDF insects	0.19 P=0.557	-0.34 P=0.286	0.34 P=0.286	-0.34 P=0.276	-0.11 P=0.729	-0.29 P=0.354	0.59 P=0.045	-0.14 P=0.665	-0.16 P=0.618	0.15 P=0.633	-0.13 P=0.681	-0.34 P=0.276	-0.15 P=0.633	0.18 P=0.572
ADF insects	0.87 P=0.000	0.57 P=0.055	-0.57 P=0.055	0.51 P=0.090	0.44 P=0.152	0.50 P=0.095	-0.31 P=0.319	0.24 P=0.443	0.61 P=0.036	-0.35 P=0.265	0.62 P=0.031	0.21 P=0.513	0.38 P=0.226	-0.56 P=0.059
ADL insects	0.48 P=0.118	0.18 P=0.572	-0.18 P=0.572	0.12 P=0.713	0.07 P=0.829	0.1 P=0.746	0.09 P=0.779	0.34 P=0.276	0.22 P=0.499	-0.21 P=0.513	0.22 P=0.499	-0.11 P=0.729	0.23 P=0.471	-0.28 P=0.379
Nitrogen insects	0.76 P=0.004	0.76 P=0.005	-0.76 P=0.005	0.84 P=0.001	0.76 P=0.005	0.85 P=0.000	-0.83 P=0.001	0.38 P=0.226	0.74 P=0.006	-0.27 P=0.404	0.77 P=0.003	0.42 P=0.175	0.29 P=0.354	-0.44 P=0.152
Carbon insects	0.76 P=0.005	0.90 P=0.000	-0.90 P=0.000	0.94 P=0.000	0.82 P=0.001	0.93 P=0.000	-0.9 P=0.000	0.23 P=0.471	0.84 P=0.001	-0.26 P=0.417	0.76 P=0.004	0.57 P=0.055	0.36 P=0.245	-0.55 P=0.067
Sulphur insects	-0.15 P=0.633	-0.18 P=0.572	0.18 P=0.572	-0.24 P=0.457	0.01 P=0.966	-0.22 P=0.484	0.37 P=0.236	-0.83 P=0.001	-0.03 P=0.931	0.06 P=0.846	-0.05 P=0.880	-0.21 P=0.513	-0.1 P=0.746	0.06 P=0.846
C/N insects	0.47 P=0.124	0.82 P=0.001	-0.82 P=0.001	0.85 P=0.001	0.67 P=0.017	0.84 P=0.001	-0.88 P=0.000	0.29 P=0.366	0.68 P=0.015	-0.35 P=0.265	0.56 P=0.059	0.77 P=0.003	0.56 P=0.059	-0.62 P=0.033
Energy insects	0.77 P=0.003	0.89 P=0.000	-0.89 P=0.000	0.92 P=0.000	0.78 P=0.003	0.92 P=0.000	-0.91 P=0.000	0.20 P=0.527	0.83 P=0.001	-0.3 P=0.342	0.73 P=0.007	0.65 P=0.022	0.45 P=0.138	-0.59 P=0.042
Protein insects	0.76 P=0.004	0.76 P=0.005	-0.76 P=0.005	0.84 P=0.001	0.76 P=0.005	0.85 P=0.000	-0.83 P=0.001	0.38 P=0.226	0.74 P=0.006	-0.27 P=0.404	0.77 P=0.003	0.42 P=0.175	0.29 P=0.354	-0.44 P=0.152
NFC insects	0.22 P=0.495	0.13 P=0.685	-0.13 P=0.685	0.31 P=0.334	0.31 P=0.334	0.31 P=0.334	-0.39 P=0.206	0.04 P=0.893	0.04 P=0.893	0.48 P=0.114	0.04 P=0.893	0.22 P=0.495	-0.48 P=0.114	0.39 P=0.206

C. Correlation analyses between larval fatty acid and fatty acid profile of the substrates.

	4:0 substrate	12:0 substrate	14:0 substrate	16:0 substrate	16:1 substrate	17:0 substrate	18:0 substrate	Elaidic substrate	Oleic substrate	Linoleic substrate	20:0 substrate	20:1 substrate	18:3 n-3 substrate	20:2 n-6 substrate	22:0 substrate	20:3 n-6 substrate	24:0 substrate	EPA substrate	24:1 substrate	DHA substrate	SFA substrate	UFA substrate	MUFA substrate	PUFA substrate	PUFA n-6 substrate	PUFA n-3 substrate
4:0 insects	0.63 P=0.029	0.62 P=0.03	0.67 P=0.017	0.61 P=0.033	0.67 P=0.017	0.85 P=0.000	0.62 P=0.03	0.61 P=0.033	-0.72 P=0.009	-0.62 P=0.03	0.62 P=0.030	0.72 P=0.009	-0.49 P=0.109	0.10 P=0.755	0.54 P=0.069	0.72 P=0.009	0.62 P=0.030	0.63 P=0.028	0.64 P=0.026	0.72 P=0.009	0.62 P=0.030	-0.62 P=0.030	-0.72 P=0.009	-0.62 P=0.030	-0.62 P=0.030	0.31 P=0.323
10:0 insects	-0.94 P=0.000	-0.76 P=0.004	-0.96 P=0.000	-0.94 P=0.000	-0.96 P=0.000	-0.64 P=0.025	-0.94 P=0.000	-0.92 P=0.000	0.84 P=0.001	0.96 P=0.000	-0.92 P=0.000	-0.90 P=0.000	0.58 P=0.048	-0.36 P=0.255	-0.95 P=0.000	-0.92 P=0.000	-0.85 P=0.000	-0.39 P=0.206	-0.92 P=0.000	-0.92 P=0.000	-0.94 P=0.000	0.94 P=0.000	0.76 P=0.004	0.97 P=0.000	0.96 P=0.000	-0.74 P=0.006
12:0 insects	-0.47 P=0.121	-0.52 P=0.080	-0.36 P=0.245	-0.51 P=0.090	-0.41 P=0.183	-0.57 P=0.053	-0.38 P=0.217	-0.48 P=0.118	0.57 P=0.055	0.45 P=0.145	-0.48 P=0.112	-0.55 P=0.063	0.48 P=0.118	-0.03 P=0.931	-0.42 P=0.175	-0.57 P=0.054	-0.61 P=0.036	-0.31 P=0.334	-0.41 P=0.186	-0.57 P=0.054	-0.47 P=0.124	0.47 P=0.124	0.55 P=0.063	0.49 P=0.106	0.45 P=0.145	-0.39 P=0.208
14:0 insects	-0.21 P=0.510	-0.36 P=0.255	-0.15 P=0.649	-0.22 P=0.484	-0.17 P=0.602	-0.57 P=0.053	-0.17 P=0.587	-0.22 P=0.499	0.31 P=0.331	0.19 P=0.557	-0.22 P=0.499	-0.26 P=0.417	0.45 P=0.138	0.15 P=0.633	-0.17 P=0.602	-0.31 P=0.333	-0.33 P=0.297	-0.31 P=0.334	-0.21 P=0.505	-0.31 P=0.333	-0.19 P=0.557	0.19 P=0.557	0.37 P=0.236	0.20 P=0.542	0.19 P=0.557	0.00 P=1.000
14:1 insects	0.78 P=0.003	0.94 P=0.000	0.76 P=0.005	0.8 P=0.002	0.73 P=0.007	0.64 P=0.025	0.64 P=0.024	0.83 P=0.001	-0.91 P=0.000	-0.74 P=0.006	0.77 P=0.003	0.80 P=0.002	-0.80 P=0.002	0.41 P=0.183	0.75 P=0.005	0.91 P=0.000	0.91 P=0.000	0.39 P=0.206	0.80 P=0.002	0.91 P=0.000	0.79 P=0.002	-0.79 P=0.002	-0.87 P=0.000	-0.75 P=0.005	-0.74 P=0.006	0.60 P=0.039
15:0 insects	0.96 P=0.000	0.79 P=0.002	0.92 P=0.000	0.94 P=0.000	0.94 P=0.000	0.59 P=0.043	0.88 P=0.000	0.87 P=0.000	-0.85 P=0.000	-0.94 P=0.000	0.97 P=0.000	0.97 P=0.000	-0.64 P=0.026	0.54 P=0.071	0.91 P=0.000	0.90 P=0.000	0.83 P=0.001	0.48 P=0.114	0.91 P=0.000	0.90 P=0.000	0.94 P=0.000	-0.94 P=0.000	-0.76 P=0.005	-0.94 P=0.000	-0.94 P=0.000	0.68 P=0.015
16:0 insects	0.92 P=0.000	0.78 P=0.003	0.85 P=0.001	0.91 P=0.000	0.88 P=0.000	0.64 P=0.025	0.82 P=0.001	0.84 P=0.001	-0.81 P=0.001	-0.91 P=0.000	0.92 P=0.000	0.91 P=0.000	-0.55 P=0.067	0.31 P=0.319	0.85 P=0.001	0.90 P=0.000	0.87 P=0.000	0.39 P=0.206	0.87 P=0.000	0.90 P=0.000	0.89 P=0.000	-0.89 P=0.000	-0.71 P=0.009	-0.92 P=0.000	-0.91 P=0.000	0.76 P=0.004
16:1 insects	0.95 P=0.000	0.87 P=0.000	0.92 P=0.000	0.95 P=0.000	0.88 P=0.000	0.64 P=0.025	0.80 P=0.002	0.87 P=0.000	-0.88 P=0.000	-0.90 P=0.000	0.92 P=0.000	0.93 P=0.000	-0.59 P=0.042	0.36 P=0.245	0.90 P=0.000	0.90 P=0.000	0.91 P=0.000	0.39 P=0.206	0.92 P=0.000	0.90 P=0.000	0.93 P=0.000	-0.93 P=0.000	-0.83 P=0.001	-0.89 P=0.000	-0.90 P=0.000	0.69 P=0.013
17:0 insects	0.94 P=0.000	0.78 P=0.003	0.90 P=0.000	0.94 P=0.000	0.90 P=0.000	0.52 P=0.082	0.85 P=0.001	0.86 P=0.000	-0.83 P=0.001	-0.92 P=0.000	0.93 P=0.000	0.92 P=0.000	-0.55 P=0.067	0.50 P=0.101	0.92 P=0.000	0.88 P=0.000	0.87 P=0.000	0.39 P=0.206	0.90 P=0.000	0.88 P=0.000	0.93 P=0.000	-0.93 P=0.000	-0.75 P=0.005	-0.93 P=0.000	-0.92 P=0.000	0.77 P=0.003
18:0 insects	0.86 P=0.000	0.87 P=0.000	0.78 P=0.003	0.83 P=0.001	0.79 P=0.002	0.57 P=0.053	0.68 P=0.015	0.76 P=0.005	-0.79 P=0.002	-0.83 P=0.001	0.85 P=0.001	0.84 P=0.001	-0.52 P=0.080	0.31 P=0.331	0.78 P=0.003	0.88 P=0.000	0.89 P=0.000	0.31 P=0.334	0.84 P=0.001	0.88 P=0.000	0.80 P=0.002	-0.80 P=0.002	-0.72 P=0.008	-0.82 P=0.001	-0.83 P=0.001	0.82 P=0.001
Elaidic insects	0.82 P=0.001	0.92 P=0.000	0.83 P=0.001	0.80 P=0.002	0.78 P=0.003	0.52 P=0.082	0.68 P=0.015	0.78 P=0.003	-0.84 P=0.001	-0.80 P=0.002	0.79 P=0.002	0.78 P=0.003	-0.64 P=0.024	0.55 P=0.063	0.81 P=0.001	0.88 P=0.000	0.88 P=0.000	0.39 P=0.206	0.88 P=0.000	0.88 P=0.000	0.79 P=0.002	-0.79 P=0.002	-0.81 P=0.001	-0.78 P=0.003	-0.80 P=0.002	0.72 P=0.008
Oleic insects	0.29 P=0.363	0.49 P=0.106	0.22 P=0.499	0.31 P=0.319	0.24 P=0.457	0.57 P=0.053	0.21 P=0.513	0.32 P=0.308	-0.47 P=0.124	-0.25 P=0.430	0.29 P=0.354	0.38 P=0.226	-0.52 P=0.085	-0.04 P=0.897	0.25 P=0.430	0.44 P=0.152	0.48 P=0.118	0.31 P=0.334	0.28 P=0.382	0.44 P=0.152	0.28 P=0.379	-0.28 P=0.379	-0.52 P=0.085	-0.27 P=0.391	-0.25 P=0.430	0.17 P=0.602
Linoleic insects	0.2 P=0.524	0.28 P=0.379	0.15 P=0.649	0.22 P=0.499	0.18 P=0.572	0.57 P=0.053	0.22 P=0.499	0.21 P=0.513	-0.27 P=0.404	-0.20 P=0.542	0.22 P=0.499	0.25 P=0.43	-0.42 P=0.175	-0.2 P=0.542	0.17 P=0.587	0.28 P=0.378	0.28 P=0.379	0.31 P=0.334	0.19 P=0.550	0.28 P=0.378	0.19 P=0.557	-0.19 P=0.557	-0.32 P=0.308	-0.21 P=0.513	-0.20 P=0.542	-0.02 P=0.948
20:0 insects	0.94 P=0.000	0.78 P=0.003	0.93 P=0.000	0.99 P=0.000	0.93 P=0.000	0.57 P=0.053	0.90 P=0.000	0.95 P=0.000	-0.87 P=0.000	-0.93 P=0.000	0.94 P=0.000	0.94 P=0.000	-0.71 P=0.010	0.43 P=0.167	0.96 P=0.000	0.89 P=0.000	0.83 P=0.001	0.31 P=0.334	0.90 P=0.000	0.89 P=0.000	0.97 P=0.000	-0.97 P=0.000	-0.78 P=0.003	-0.94 P=0.000	-0.93 P=0.000	0.66 P=0.018
20:1 insects	-0.60 P=0.041	-0.51 P=0.092	-0.70 P=0.012	-0.66 P=0.019	-0.68 P=0.014	-0.58 P=0.046	-0.79 P=0.002	-0.77 P=0.003	0.65 P=0.023	0.63 P=0.027	-0.61 P=0.037	-0.59 P=0.043	0.83 P=0.001	-0.30 P=0.339	-0.73 P=0.008	-0.65 P=0.023	-0.53 P=0.078	-0.40 P=0.203	-0.61 P=0.037	-0.65 P=0.023	-0.70 P=0.012	0.70 P=0.012	0.64 P=0.025	0.66 P=0.019	0.63 P=0.027	-0.16 P=0.615
18:3 n-3 insects	-0.79 P=0.002	-0.67 P=0.017	-0.80 P=0.002	-0.76 P=0.005	-0.78 P=0.003	-0.26 P=0.408	-0.69 P=0.013	-0.73 P=0.007	0.67 P=0.017	0.77 P=0.003	-0.78 P=0.003	-0.74 P=0.006	0.38 P=0.217	-0.53 P=0.075	-0.76 P=0.004	-0.74 P=0.006	-0.67 P=0.017	-0.22 P=0.495	-0.78 P=0.003	-0.74 P=0.006	-0.78 P=0.003	0.78 P=0.003	0.56 P=0.059	0.76 P=0.005	0.77 P=0.003	-0.70 P=0.011
21:0 insects	0.96 P=0.000	0.80 P=0.002	0.93 P=0.000	0.92 P=0.000	0.95 P=0.000	0.65 P=0.022	0.88 P=0.000	0.85 P=0.001	-0.83 P=0.001	-0.95 P=0.000	0.97 P=0.000	0.96 P=0.000	-0.56 P=0.059	0.43 P=0.167	0.90 P=0.000	0.91 P=0.000	0.83 P=0.001	0.48 P=0.114	0.94 P=0.000	0.91 P=0.000	0.92 P=0.000	-0.92 P=0.000	-0.73 P=0.007	-0.94 P=0.000	-0.95 P=0.000	0.73 P=0.007
20:2 n-6 insects	-0.93 P=0.000	-0.80 P=0.002	-0.91 P=0.000	-0.91 P=0.000	-0.89 P=0.000	-0.41 P=0.182	-0.80 P=0.002	-0.85 P=0.000	0.82 P=0.001	0.88 P=0.000	-0.91 P=0.000	-0.91 P=0.000	0.53 P=0.076	-0.53 P=0.074	-0.91 P=0.000	-0.86 P=0.000	-0.82 P=0.001	-0.28 P=0.379	-0.90 P=0.000	-0.86 P=0.000	-0.91 P=0.000	0.91 P=0.000	0.73 P=0.007	0.88 P=0.000	0.88 P=0.000	-0.76 P=0.004
22:0 insects	0.60 P=0.040	0.83 P=0.001	0.64 P=0.026	0.66 P=0.018	0.57 P=0.051	0.51 P=0.090	0.52 P=0.085	0.73 P=0.007	-0.83 P=0.001	-0.59 P=0.045	0.56 P=0.059	0.62 P=0.033	-0.73 P=0.007	0.42 P=0.175	0.67 P=0.017	0.78 P=0.003	0.83 P=0.001	0.31 P=0.334	0.65 P=0.021	0.78 P=0.003	0.64 P=0.024	-0.64 P=0.024	-0.86 P=0.000	-0.59 P=0.042	-0.59 P=0.045	0.53 P=0.075
24:0 insects	0.91 P=0.000	0.91 P=0.000	0.90 P=0.000	0.91 P=0.000	0.90 P=0.000	0.55 P=0.067	0.84 P=0.001	0.91 P=0.000	-0.88 P=0.000	-0.91 P=0.000	0.91 P=0.000	0.88 P=0.000	-0.75 P=0.005	0.50 P=0.095	0.93 P=0.000	0.96 P=0.000	0.91 P=0.000	0.33 P=0.301	0.92 P=0.000	0.96 P=0.000	0.91 P=0.000	-0.91 P=0.000	-0.80 P=0.002	-0.91 P=0.000	-0.91 P=0.000	0.78 P=0.003
EPA insects	0.90 P=0.000	0.89 P=0.000	0.88 P=0.000	0.92 P=0.000	0.88 P=0.000	0.61 P=0.036	0.81 P=0.001	0.91 P=0.000	-0.91 P=0.000	-0.89 P=0.000	0.89 P=0.000	0.91 P=0.000	-0.72 P=0.008	0.44 P=0.148	0.90 P=0.000	0.94 P=0.000	0.89 P=0.000	0.33 P=0.301	0.91 P=0.000	0.94 P=0.000	0.89 P=0.000	-0.89 P=0.000	-0.84 P=0.001	-0.89 P=0.000	-0.89 P=0.000	0.75 P=0.005
SFA insects	-0.25 P=0.440	-0.42 P=0.175	-0.17 P=0.587	-0.27 P=0.391	-0.20 P=0.542	-0.57 P=0.053	-0.18 P=0.572	-0.27 P=0.404	0.39 P=0.208	0.22 P=0.499	-0.25 P=0.430	-0.32 P=0.308	0.48 P=0.112	0.09 P=0.779	-0.20 P=0.527	-0.37 P=0.242	-0.40 P=0.199	-0.31 P=0.334	-0.24 P=0.449	-0.37 P=0.242	-0.23 P=0.471	0.23 P=0.471	0.45 P=0.145	0.23 P=0.471	0.22 P=0.499	-0.08 P=0.812
UFA insects	0.25 P=0.440	0.42 P=0.175	0.17 P=0.587	0.27 P=0.391	0.20 P=0.542	0.57 P=0.053	0.18 P=0.572	0.27 P=0.404	-0.39 P=0.208	-0.22 P=0.499	0.25 P=0.430	0.32 P=0.308	-0.48 P=0.112	-0.09 P=0.779	0.20 P=0.527	0.37 P=0.242	0.40 P=0.199	0.31 P=0.334	0.24 P=0.449	0.37 P=0.242	0.23 P=0.471	-0.23 P=0.471	-0.45 P=0.145	-0.23 P=0.471	-0.22 P=0.499	0.08 P=0.812
MUFA insects	0.46 P=0.135	0.69 P=0.014	0.39 P=0.208	0.48 P=0.118	0.42 P=0.175	0.57 P=0.053	0.35 P=0.265	0.50 P=0.101	-0.61 P=0.036	-0.45 P=0.138	0.46 P=0.131	0.50 P=0.095	-0.62 P=0.031	0.17 P=0.602	0.41 P=0.183	0.63 P=0.027	0.64 P=0.024	0.31 P=0.334	0.49 P=0.102	0.63 P=0.027	0.43 P=0.159	-0.43 P=0.159	-0.61 P=0.036	-0.46 P=0.131	-0.45 P=0.138	0.41 P=0.183
PUFA insects	0.20 P=0.524	0.28 P=0.379	0.15 P=0.649	0.22 P=0.499	0.18 P=0.572	0.57 P=0.053	0.22 P=0.499	0.21 P=0.513	-0.27 P=0.404	-0.20 P=0.542	0.22 P=0.499	0.25 P=0.430	-0.42 P=0.175	-0.20 P=0.542	0.17 P=0.587	0.28 P=0.378	0.28 P=0.379	0.31 P=0.334	0.19 P=0.550	0.28 P=0.378	0.19 P=0.557	-0.19 P=0.557	-0.32 P=0.308	-0.21 P=0.513	-0.20 P=0.542	-0.02 P=0.948
PUFA n-6 insects	0.20 P=0.524	0.28 P=0.379	0.15 P=0.649	0.22 P=0.499	0.18 P=0.572	0.57 P=0.053	0.22 P=0.499	0.21 P=0.513	-0.27 P=0.404	-0.20 P=0.542	0.22 P=0.499	0.25 P=0.430	-0.42 P=0.175	-0.20 P=0.542	0.17 P=0.587	0.28 P=0.378	0.28 P=0.379	0.31 P=0.334	0.19 P=0.550	0.28 P=0.378	0.19 P=0.557	-0.19 P=0.557	-0.32 P=0.308	-0.21 P=0.513	-0.20 P=0.542	-0.02 P=0.948
PUFA n-3 insects	-0.56 P=0.060	-0.34 P=0.276	-0.57 P=0.051	-0.50 P=0.095	-0.55 P=0.063	-0.09 P=0.790	-0.49 P=0.106	-0.45 P=0.145	0.37 P=0.236	0.54 P=0.071	-0.55 P=0.067	-0.50 P=0.101	0.08 P=0.795	-0.44 P=0.152	-0.49 P=0.106	-0.42 P=0.172	-0.37 P=0.236	-0.22 P=0.495	-0.53 P=0.078	-0.42 P=0.172	-0.55 P=0.067	0.55 P=0.067	0.26 P=0.417	0.52 P=0.08	0.54 P=0.071	-0.43 P=0.167

D. Correlation analyses between larval amino acids and amino acid profile of the substrates.

	Asp substrate	Thr substrate	Ser substrate	Glu substrate	Gly substrate	Ala substrate	Val substrate	Cys substrate	Met substrate	Iso substrate	Leu substrate	Tyr substrate	Phe substrate	His substrate	Lys substrate	Arg substrate	Pro substrate
Asp	0.28	0.27	0.30	-0.16	0.17	0.17	0.19	-0.07	-0.34	-0.01	-0.17	0.57	-0.62	-0.31	0.15	-0.20	-0.39
insect	P=0.379	P=0.404	P=0.341	P=0.618	P=0.602	P=0.587	P=0.557	P=0.829	P=0.276	P=0.966	P=0.602	P=0.055	P=0.031	P=0.319	P=0.649	P=0.527	P=0.208
Thr	-0.35	-0.31	-0.40	0.47	-0.50	-0.47	-0.40	0.18	0.21	-0.15	-0.11	0.35	-0.52	0.28	0.04	0.47	0.02
insect	P=0.265	P=0.331	P=0.203	P=0.124	P=0.095	P=0.124	P=0.199	P=0.572	P=0.513	P=0.633	P=0.729	P=0.265	P=0.08	P=0.379	P=0.897	P=0.124	P=0.948
Ser	0.16	0.17	0.32	-0.01	0.10	0.10	0.06	-0.05	-0.17	-0.15	-0.29	0.57	-0.37	-0.08	0.31	-0.08	-0.36
insect	P=0.618	P=0.587	P=0.307	P=0.966	P=0.746	P=0.762	P=0.846	P=0.88	P=0.587	P=0.649	P=0.366	P=0.051	P=0.236	P=0.795	P=0.319	P=0.812	P=0.245
Glu	0.62	0.48	0.67	-0.45	0.53	0.53	0.54	-0.45	-0.64	0.32	0.08	0.76	-0.15	-0.41	0.38	-0.37	-0.67
insect	P=0.031	P=0.112	P=0.017	P=0.145	P=0.075	P=0.075	P=0.071	P=0.138	P=0.026	P=0.308	P=0.795	P=0.005	P=0.633	P=0.183	P=0.226	P=0.236	P=0.017
Gly	0.36	0.29	0.36	-0.27	0.25	0.29	0.24	-0.24	-0.35	0.01	-0.22	0.48	-0.44	-0.43	0.21	-0.29	-0.51
insect	P=0.255	P=0.366	P=0.254	P=0.391	P=0.430	P=0.366	P=0.443	P=0.457	P=0.265	P=0.983	P=0.484	P=0.112	P=0.152	P=0.167	P=0.513	P=0.354	P=0.090
Ala	0.57	0.51	0.51	-0.49	0.47	0.48	0.47	-0.49	-0.50	0.19	0.03	0.43	-0.29	-0.55	0.18	-0.43	-0.56
insect	P=0.051	P=0.090	P=0.089	P=0.106	P=0.124	P=0.112	P=0.124	P=0.106	P=0.095	P=0.557	P=0.931	P=0.159	P=0.354	P=0.063	P=0.572	P=0.159	P=0.059
Val	0.27	0.24	0.22	-0.29	0.18	0.22	0.17	-0.30	-0.23	-0.10	-0.13	0.12	-0.38	-0.52	-0.13	-0.33	-0.27
insect	P=0.404	P=0.457	P=0.484	P=0.354	P=0.572	P=0.484	P=0.602	P=0.342	P=0.471	P=0.746	P=0.697	P=0.713	P=0.226	P=0.085	P=0.697	P=0.297	P=0.391
Cys	0.57	0.75	0.70	-0.80	0.70	0.72	0.64	-0.35	-0.44	0.43	-0.06	0.47	0.01	-0.78	0.06	-0.85	-0.69
insect	P=0.051	P=0.005	P=0.011	P=0.002	P=0.011	P=0.008	P=0.024	P=0.265	P=0.152	P=0.167	P=0.863	P=0.124	P=0.983	P=0.003	P=0.846	P=0.001	P=0.014
Met	-0.45	-0.10	-0.13	0.36	-0.36	-0.32	-0.38	-0.01	0.22	-0.17	0.13	-0.14	0.12	0.46	-0.42	0.29	0.41
insect	P=0.138	P=0.762	P=0.68	P=0.255	P=0.255	P=0.308	P=0.226	P=0.966	P=0.484	P=0.587	P=0.681	P=0.665	P=0.713	P=0.131	P=0.175	P=0.366	P=0.191
Iso	0.59	0.52	0.59	-0.61	0.55	0.61	0.55	-0.44	-0.56	0.34	-0.01	0.47	-0.15	-0.62	0.17	-0.58	-0.66
insect	P=0.042	P=0.08	P=0.044	P=0.036	P=0.063	P=0.036	P=0.063	P=0.152	P=0.059	P=0.286	P=0.966	P=0.124	P=0.649	P=0.031	P=0.587	P=0.048	P=0.018
Leu	0.40	0.28	0.35	-0.29	0.27	0.31	0.27	-0.29	-0.39	0.05	-0.20	0.45	-0.41	-0.44	0.24	-0.29	-0.54
insect	P=0.199	P=0.379	P=0.264	P=0.354	P=0.391	P=0.319	P=0.391	P=0.354	P=0.208	P=0.880	P=0.527	P=0.145	P=0.191	P=0.152	P=0.443	P=0.366	P=0.071
Tyr	0.17	0.20	0.25	-0.13	0.12	0.13	0.15	0.31	-0.09	-0.06	-0.26	0.59	-0.71	-0.15	0.38	-0.11	-0.36
insect	P=0.602	P=0.542	P=0.436	P=0.681	P=0.713	P=0.681	P=0.633	P=0.331	P=0.779	P=0.846	P=0.417	P=0.045	P=0.009	P=0.649	P=0.226	P=0.729	P=0.245
Phe	-0.03	0.01	0.03	0.13	-0.15	-0.12	-0.14	-0.13	-0.09	-0.22	-0.17	0.34	-0.50	-0.10	-0.08	0.06	-0.14
insect	P=0.914	P=0.966	P=0.931	P=0.697	P=0.633	P=0.713	P=0.665	P=0.681	P=0.779	P=0.499	P=0.602	P=0.286	P=0.101	P=0.762	P=0.812	P=0.863	P=0.665
His	-0.48	-0.43	-0.28	0.67	-0.56	-0.54	-0.60	0.05	0.20	-0.52	-0.23	-0.05	-0.16	0.55	-0.11	0.57	0.34
insect	P=0.112	P=0.159	P=0.372	P=0.017	P=0.059	P=0.071	P=0.039	P=0.88	P=0.527	P=0.085	P=0.471	P=0.88	P=0.618	P=0.063	P=0.729	P=0.051	P=0.276
Lys	0.67	0.51	0.65	-0.53	0.57	0.61	0.60	-0.69	-0.71	0.51	0.24	0.63	0.08	-0.45	0.31	-0.38	-0.71
insect	P=0.017	P=0.09	P=0.021	P=0.075	P=0.051	P=0.036	P=0.039	P=0.013	P=0.009	P=0.09	P=0.443	P=0.028	P=0.812	P=0.145	P=0.319	P=0.217	P=0.01
Arg	0.22	0.20	0.37	-0.01	0.15	0.12	0.15	-0.05	-0.19	-0.04	-0.06	0.75	-0.30	0.03	0.39	-0.03	-0.36
insect	P=0.484	P=0.527	P=0.230	P=0.966	P=0.649	P=0.713	P=0.633	P=0.880	P=0.557	P=0.897	P=0.863	P=0.005	P=0.342	P=0.914	P=0.208	P=0.931	P=0.245
Pro	0.24	0.09	0.19	-0.13	0.10	0.15	0.14	-0.38	-0.27	-0.03	0.12	0.24	-0.17	-0.24	-0.08	-0.13	-0.21
insect	P=0.443	P=0.779	P=0.549	P=0.681	P=0.762	P=0.649	P=0.665	P=0.217	P=0.391	P=0.914	P=0.713	P=0.443	P=0.587	P=0.443	P=0.795	P=0.681	P=0.513