

APPENDIX

Appendix 1 : Brain AChE activity in fish exposed to various concentrations of chlorpyrifos under semistatic conditions.

Period of exposure (days)	Insecticide concentration (ppm)	AChE activity (mM/hr/mg protein)	Mean Activity (S.D)
3	control	5.8042 6.1428 5.8042	5.9171 (0.1954)
	0.001	6.4728 6.4382 6.6458	6.5189 (0.1112)
	0.01	7.0655 6.7095 7.0655	6.9468 (0.2055)
	0.1	4.4855 4.5080 4.4404	4.4780 (0.0344)
	1.0	2.3156 2.3633 2.3156	2.3315 (0.0275)
7	control	6.0773 6.1345 6.3631	6.1916 (0.1512)
	0.001	5.9034 6.3998 6.3289	6.2107 (0.2684)
	0.01	5.7133 5.4838 5.8154	5.6708 (0.1698)
	0.1	4.6034 4.4423 4.3502	4.4653 (0.1281)
	1.0	1.6635 1.5724 1.7091	1.6484 (0.0696)
14	control	7.4751 7.5018 7.2082	7.3950 (0.1623)
	0.001	5.1576 5.4823 5.3200	5.3200 (0.1623)
	0.01	6.0617 5.8885 6.2348	6.0617 (0.1731)
	0.1	3.6750 3.8549 3.9063	3.8121 (0.1214)
	1.0	0.9939 1.0123 1.0859	1.0347 (0.0468)

Appendix 1 (cont'd)

21	control	7.5139 7.7422 7.3063	7.5208 (0.2180)
	0.001	5.5569 5.2790 5.2526	5.3628 (0.1685)
	0.01	4.7984 4.6809 4.8839	4.7877 (0.1019)
	0.1	3.3864 3.2524 3.0611	3.2333 (0.1634)
	1.0	1.1915 1.1348 1.2199	1.1821 (0.0433)
28	control	6.8349 7.0729 7.0729	6.9936 (0.1374)
	0.001	4.9607 5.0747 4.8808	4.9721 (0.0974)
	0.01	4.5908 4.8192 4.6136	4.6745 (0.1257)
	0.1	2.2607 2.2861 2.2099	2.2522 (0.0388)

Appendix 2 : Brain AChE activity in fish exposed to various concentrations of diazinon under semistatic conditions.

Period of exposure (days)	Insecticide concentration (ppm)	AChE activity (mM/hr/mg protein)	Mean Activity (S.D)
3	control	2.4386	2.4386 (0.0399)
		2.3986	
		2.4786	
	0.001	2.5007	2.5045 (0.0032)
		2.5064	
		2.5064	
	0.01	2.9520	3.0550 (0.1527)
		3.2305	
		2.9826	
	0.1	3.0707	2.9893 (0.0827)
		2.9053	
		2.9920	
	1.0	1.5564	1.5420 (0.0249)
		1.5564	
		1.5132	
7	control	2.2257	2.3921 (0.1525)
		2.5253	
		2.4254	
	0.001	2.0734	2.1846 (0.1013)
		2.2086	
		2.2717	
	0.01	2.0979	2.0497 (0.0459)
		2.0064	
		2.0448	
	0.1	2.4835	2.3023 (0.1645)
		2.2614	
		2.1621	
	1.0	1.0096	0.9517 (0.0868)
		0.9938	
		0.8518	
14	control	1.8108	1.7800 (0.0699)
		1.7000	
		1.8293	
	0.001	2.4652	2.5034 (0.1010)
		2.6179	
		2.4270	
	0.01	2.6700	2.9189 (0.2383)
		3.1451	
		2.9415	
	0.1	2.0254	2.1150 (0.1551)
		2.0254	
		2.2942	
	1.0	0.9211	0.9752 (0.0541)
		0.9752	
		1.0294	

Appendix 2 (cont'd)

21	control	2.2990 1.9895 2.0691	2.1192 (0.1607)
	0.001	2.3163 2.4879 2.4708	2.4250 (0.0945)
	0.01	3.5693 3.8365 3.6641	3.6900 (0.1354)
	0.1	2.3423 2.5233 2.4275	2.4311 (0.0905)
	1.0	0.7766 0.8270 0.7479	0.7838 (0.0400)
28	control	2.3129 2.2708 2.1762	2.2533 (0.0700)
	0.001	2.9962 3.3291 3.6499	3.3251 (0.3268)
	0.01	3.1348 3.1348 3.4956	3.2551 (0.2083)
	0.1	3.2412 2.5699 2.3014	2.7042 (0.4840)
	1.0	0.9094 1.0297 0.8801	0.9397 (0.0792)

Appendix 3 : EROD activity in fish exposed to various concentrations of chlorpyrifos under semistatic conditions.

Period of exposure (days)	Insecticide concentration (ppm)	EROD activity (moles/min/mg protein)	Mean Activity (S.D)
3	control	3.107 x 10 ⁻⁶	3.075 x 10 ⁻⁶ (0.048 x 10 ⁻⁶)
		3.019 x 10 ⁻⁶	
		3.099 x 10 ⁻⁶	
	0.001	7.748 x 10 ⁻⁶	7.886 x 10 ⁻⁶ (0.121 x 10 ⁻⁶)
		7.98 x 10 ⁻⁶	
		7.929 x 10 ⁻⁶	
	0.01	4.369 x 10 ⁻⁶	4.177 x 10 ⁻⁶ (0.216 x 10 ⁻⁶)
		3.943 x 10 ⁻⁶	
		4.22 x 10 ⁻⁶	
	0.1	10.216 x 10 ⁻⁶	10.112 x 10 ⁻⁶ (0.092 x 10 ⁻⁶)
		10.041 x 10 ⁻⁶	
		10.078 x 10 ⁻⁶	
7	control	5.427 x 10 ⁻⁶	5.319 x 10 ⁻⁶ (0.14 x 10 ⁻⁶)
		5.37 x 10 ⁻⁶	
		5.161 x 10 ⁻⁶	
	0.001	5.85 x 10 ⁻⁶	6.148 x 10 ⁻⁶ (0.479 x 10 ⁻⁶)
		5.894 x 10 ⁻⁶	
		6.701 x 10 ⁻⁶	
	0.01	27.055 x 10 ⁻⁶	27.011 x 10 ⁻⁶ (0.047 x 10 ⁻⁶)
		27.017 x 10 ⁻⁶	
		26.961 x 10 ⁻⁶	
	0.1	9.712 x 10 ⁻⁶	10.009 x 10 ⁻⁶ (0.736 x 10 ⁻⁶)
		9.468 x 10 ⁻⁶	
		10.848 x 10 ⁻⁶	
14	control	7.083 x 10 ⁻⁶	7.263 x 10 ⁻⁶ (0.158 x 10 ⁻⁶)
		7.328 x 10 ⁻⁶	
		7.379 x 10 ⁻⁶	
	0.001	4.165 x 10 ⁻⁶	4.246 x 10 ⁻⁶ (0.104 x 10 ⁻⁶)
		4.208 x 10 ⁻⁶	
		4.364 x 10 ⁻⁶	
	0.01	13.295 x 10 ⁻⁶	12.309 x 10 ⁻⁶ (0.855 x 10 ⁻⁶)
		11.874 x 10 ⁻⁶	
		11.757 x 10 ⁻⁶	
	0.1	8.136 x 10 ⁻⁶	7.988 x 10 ⁻⁶ (0.658 x 10 ⁻⁶)
		7.268 x 10 ⁻⁶	
		8.56 x 10 ⁻⁶	
	0.1	12.964 x 10 ⁻⁶	14.243 x 10 ⁻⁶ (1.108 x 10 ⁻⁶)
		14.875 x 10 ⁻⁶	
		14.892 x 10 ⁻⁶	
	1.0	0.953 x 10 ⁻⁶	0.912 x 10 ⁻⁶ (0.072 x 10 ⁻⁶)
		0.828 x 10 ⁻⁶	
		0.953 x 10 ⁻⁶	

Appendix 3 (cont'd)

21	control	1.419 x 10 ⁻⁶ 1.475 x 10 ⁻⁶ 1.464 x 10 ⁻⁶	1.453 x 10 ⁻⁶ (0.03 x 10 ⁻⁶)
	0.001	9.518 x 10 ⁻⁶ 9.707 x 10 ⁻⁶ 8.713 x 10 ⁻⁶	9.313 x 10 ⁻⁶ (0.527 x 10 ⁻⁶)
	0.01	8.502 x 10 ⁻⁶ 7.936 x 10 ⁻⁶ 8.36 x 10 ⁻⁶	8.266 x 10 ⁻⁶ (0.294 x 10 ⁻⁶)
	0.1	4.671 x 10 ⁻⁶ 4.748 x 10 ⁻⁶ 4.704 x 10 ⁻⁶	4.707 x 10 ⁻⁶ (0.038 x 10 ⁻⁶)
	1.0	0.597 x 10 ⁻⁶ 0.597 x 10 ⁻⁶ 0.686 x 10 ⁻⁶	0.627 x 10 ⁻⁶ (0.05 x 10 ⁻⁶)
28	control	8.728 x 10 ⁻⁶ 8.34 x 10 ⁻⁶ 8.364 x 10 ⁻⁶	8.478 x 10 ⁻⁶ (0.217 x 10 ⁻⁶)
	0.001	13.114 x 10 ⁻⁶ 14.551 x 10 ⁻⁶ 12.8 x 10 ⁻⁶	13.488 x 10 ⁻⁶ (0.933 x 10 ⁻⁶)
	0.01	22.841 x 10 ⁻⁶ 22.385 x 10 ⁻⁶ 21.747 x 10 ⁻⁶	22.324 x 10 ⁻⁶ (0.549 x 10 ⁻⁶)
	0.1	7.898 x 10 ⁻⁶ 8.667 x 10 ⁻⁶ 7.946 x 10 ⁻⁶	8.17 x 10 ⁻⁶ (0.43 x 10 ⁻⁶)

Appendix 4 : EROD activity in fish exposed to various concentrations of diazinon under semistatic conditions.

Period of exposure (days)	Insecticide concentration (ppm)	EROD activity (moles/min/mg protein)	Mean Activity (S.D)
3	control	3.0123 x 10 ⁻⁶	2.9690 x 10 ⁻⁶ (0.1080 x 10 ⁻⁶)
		3.0492 x 10 ⁻⁶	
		2.8463 x 10 ⁻⁶	
	0.001	4.7728 x 10 ⁻⁶	4.8320 x 10 ⁻⁶ (0.1160 x 10 ⁻⁶)
		4.7570 x 10 ⁻⁶	
		4.9665 x 10 ⁻⁶	
	0.01	4.2492 x 10 ⁻⁶	4.0520 x 10 ⁻⁶ (0.2070 x 10 ⁻⁶)
		4.0733 x 10 ⁻⁶	
		3.8353 x 10 ⁻⁶	
	0.1	10.3240 x 10 ⁻⁶	10.2490 x 10 ⁻⁶ (0.1170 x 10 ⁻⁶)
		10.3090 x 10 ⁻⁶	
		10.1140 x 10 ⁻⁶	
7	control	2.5670 x 10 ⁻⁶	2.5690 x 10 ⁻⁶ (0.030 x 10 ⁻⁶)
		2.5399 x 10 ⁻⁶	
		2.5994 x 10 ⁻⁶	
	0.001	3.5918 x 10 ⁻⁶	3.6760 x 10 ⁻⁶ (0.0849 x 10 ⁻⁶)
		3.6761 x 10 ⁻⁶	
		3.7616 x 10 ⁻⁶	
	0.01	3.3121 x 10 ⁻⁶	3.6516 x 10 ⁻⁶ (0.3110 x 10 ⁻⁶)
		3.9229 x 10 ⁻⁶	
		3.7198 x 10 ⁻⁶	
	0.1	6.6847 x 10 ⁻⁶	6.6690 x 10 ⁻⁶ (0.0890 x 10 ⁻⁶)
		6.5729 x 10 ⁻⁶	
		6.7496 x 10 ⁻⁶	
14	control	3.6931 x 10 ⁻⁶	3.6586 x 10 ⁻⁶ (0.1190 x 10 ⁻⁶)
		3.7566 x 10 ⁻⁶	
		3.5261 x 10 ⁻⁶	
	1.0	1.6579 x 10 ⁻⁶	1.6110 x 10 ⁻⁶ (0.0440 x 10 ⁻⁶)
		1.6053 x 10 ⁻⁶	
		1.5703 x 10 ⁻⁶	
	0.001	4.3439 x 10 ⁻⁶	4.4420 x 10 ⁻⁶ (0.0850 x 10 ⁻⁶)
		4.4915 x 10 ⁻⁶	
		4.4915 x 10 ⁻⁶	
	0.01	3.8788 x 10 ⁻⁶	3.8080 x 10 ⁻⁶ (0.0706 x 10 ⁻⁶)
		3.7376 x 10 ⁻⁶	
		3.8082 x 10 ⁻⁶	
	0.1	5.6519 x 10 ⁻⁶	5.8300 x 10 ⁻⁶ (0.1830 x 10 ⁻⁶)
		5.8204 x 10 ⁻⁶	
		6.0182 x 10 ⁻⁶	
	1.0	2.6427 x 10 ⁻⁶	2.6018 x 10 ⁻⁶ (0.0356 x 10 ⁻⁶)
		2.5766 x 10 ⁻⁶	
		2.5863 x 10 ⁻⁶	
	1.0	1.8227 x 10 ⁻⁶	1.8370 x 10 ⁻⁶ (0.0180 x 10 ⁻⁶)
		1.8314 x 10 ⁻⁶	
		1.8574 x 10 ⁻⁶	

Appendix 4 (cont'd)

21	control	0.9370 x 10-6 0.9755 x 10-6 0.9043 x 10-6	0.9390 x 10-6 (0.0356 x 10-6)
	0.001	0.9137 x 10-6 0.9721 x 10-6 0.8678 x 10-6	0.9179 x 10-6 (0.0520 x 10-6)
	0.01	12.0448 x 10-6 13.5983 x 10-6 12.6881 x 10-6	12.7770 x 10-6 (0.7800 x 10-6)
	0.1	5.3177 x 10-6 5.0877 x 10-6 5.5601 x 10-6	5.3210 x 10-6 (0.2360 x 10-6)
	1.0	0.2732 x 10-6 0.2975 x 10-6 0.2513 x 10-6	0.2740 x 10-6 (0.0230 x 10-6)
28	control	0.0729 x 10-6 0.0729 x 10-6 0.0731 x 10-6	0.0730 x 10-6 (0.0001 x 10-6)
	0.001	1.5790 x 10-6 1.6700 x 10-6 1.4939 x 10-6	1.5810 x 10-6 (0.0880 x 10-6)
	0.01	4.3449 x 10-6 4.2154 x 10-6 4.5542 x 10-6	4.3710 x 10-6 (0.1700 x 10-6)
	0.1	3.0807 x 10-6 3.4414 x 10-6 3.2581 x 10-6	3.2600 x 10-6 (0.1800 x 10-6)
	1.0	0.2167 x 10-6 0.2351 x 10-6 0.2020 x 10-6	0.2180 x 10-6 (0.0165 x 10-6)

Appendix 5 : Brain AChE activity recovery subsequent to exposure to 1.0 mg/l chlorpyrifos

Post exposure (days)	AChE Activity (mM/hr/mg protein)			
	Test species	Mean Activity (S.D)	Control	Mean Activity (S.D)
0	1.8777	1.9025	5.3179	5.4776
	1.9521	(0.0429)	5.8449	(0.3189)
	1.8777		5.2700	
1	3.0892	3.1167	7.2836	7.1336
	3.1995	(0.0729)	7.0790	(0.1315)
	3.0616		7.0381	
8	2.7293	2.6156	3.5755	3.7161
	2.5019	(0.1137)	3.7531	(0.1262)
	2.6156		3.8198	
15	2.1471	2.1914	5.1837	5.0671
	2.1471	(0.0767)	5.1519	(0.1751)
	2.2801		4.8657	
22	5.1769	4.9921	3.6627	3.5706
	4.9181	(0.1611)	3.5245	(0.0798)
	4.8811		3.5245	

Appendix 6 : Brain AChE activity recovery subsequent to exposure to 1.0 mg/l diazinon

Post exposure (days)	AChE Activity (mM/hr/mg protein)			
	Test species	Mean Activity (S.D)	Control	Mean Activity (S.D)
0	2.3792	2.4000	5.2619	5.3054
	2.4000	(0.0208)	5.4793	(0.1567)
	2.4209		5.1749	
1	2.7763	2.8935	2.7597	2.6761
	2.9429	(0.1019)	2.5924	(0.0836)
	2.9614		2.6761	
8	2.2812	2.2218	3.1935	3.1304
	2.2099	(0.0544)	3.1514	(0.0757)
	2.1743		3.0464	
15	2.5657	2.6726	3.3457	3.3776
	2.7083	(0.0942)	3.3935	(0.0275)
	2.7439		3.3935	
22	2.6103	2.6492	4.7467	4.8292
	2.6569	(0.0356)	4.8705	(0.0714)
	2.6802		4.8705	

Appendix 7 : Liver EROD activity recovery subsequent to exposure to 1.0 mg/l chlorpyrifos

Post exposure (days)	EROD Activity (moles/min/mg protein)			
	Test species	Mean Activity (S.D)	Control	Mean Activity (S.D)
0	7.22 x 10 ⁻⁶ 6.815 x 10 ⁻⁶ 7.151 x 10 ⁻⁶	7.062 x 10 ⁻⁶ (0.216 x 10 ⁻⁶)	0.69 x 10 ⁻⁶ 0.521 x 10 ⁻⁶ 0.6059 x 10 ⁻⁶	0.605 x 10 ⁻⁶ (0.119 x 10 ⁻⁶)
1	8.657 x 10 ⁻⁶ 8.511 x 10 ⁻⁶ 8.496 x 10 ⁻⁶	8.555 x 10 ⁻⁶ (0.088 x 10 ⁻⁶)	2.882 x 10 ⁻⁶ 2.809 x 10 ⁻⁶ 2.702 x 10 ⁻⁶	2.798 x 10 ⁻⁶ (0.09 x 10 ⁻⁶)
8	6.503 x 10 ⁻⁶ 6.5 x 10 ⁻⁶ 6.494 x 10 ⁻⁶	6.509 x 10 ⁻⁶ (0.018 x 10 ⁻⁶)	6.274 x 10 ⁻⁶ 6.099 x 10 ⁻⁶ 5.629 x 10 ⁻⁶	6.001 x 10 ⁻⁶ (0.333 x 10 ⁻⁶)
15	4.039 x 10 ⁻⁶ 4.169 x 10 ⁻⁶ 4.194 x 10 ⁻⁶	4.134 x 10 ⁻⁶ (0.083 x 10 ⁻⁶)	6.471 x 10 ⁻⁶ 6.128 x 10 ⁻⁶ 6.284 x 10 ⁻⁶	6.294 x 10 ⁻⁶ (0.171 x 10 ⁻⁶)
22	7.953 x 10 ⁻⁶ 8.077 x 10 ⁻⁶ 7.82 x 10 ⁻⁶	7.95 x 10 ⁻⁶ (0.128 x 10 ⁻⁶)	9.648 x 10 ⁻⁶ 9.907 x 10 ⁻⁶ 9.776 x 10 ⁻⁶	9.777 x 10 ⁻⁶ (0.129 x 10 ⁻⁶)

Appendix 8 : Liver EROD activity recovery subsequent to exposure to 1.0 mg/l diazinon.

Post exposure (days)	EROD Activity (mM/hr/mg protein)			
	Test species	Mean Activity (S.D)	Control	Mean Activity (S.D)
0	1.001 x 10 ⁻⁶ 1.065 x 10 ⁻⁶ 0.937 x 10 ⁻⁶	1.001 x 10 ⁻⁶ (0.064 x 10 ⁻⁶)	3.849 x 10 ⁻⁶ 4.149 x 10 ⁻⁶ 4.048 x 10 ⁻⁶	4.015 x 10 ⁻⁶ (0.152 x 10 ⁻⁶)
1	8.771 x 10 ⁻⁶ 8.659 x 10 ⁻⁶ 8.365 x 10 ⁻⁶	8.598 x 10 ⁻⁶ (0.209 x 10 ⁻⁶)	2.136 x 10 ⁻⁶ 2.184 x 10 ⁻⁶ 2.03 x 10 ⁻⁶	2.116 x 10 ⁻⁶ (0.079 x 10 ⁻⁶)
8	0.071 x 10 ⁻⁶ 0.054 x 10 ⁻⁶ 0.061 x 10 ⁻⁶	0.062 x 10 ⁻⁶ (0.008 x 10 ⁻⁶)	2.044 x 10 ⁻⁶ 2.083 x 10 ⁻⁶ 2.192 x 10 ⁻⁶	2.106 x 10 ⁻⁶ (0.076 x 10 ⁻⁶)
15	2.123 x 10 ⁻⁶ 2.27 x 10 ⁻⁶ 2.013 x 10 ⁻⁶	2.135 x 10 ⁻⁶ (0.128 x 10 ⁻⁶)	0.758 x 10 ⁻⁶ 0.085 x 10 ⁻⁶ 0.787 x 10 ⁻⁶	0.798 x 10 ⁻⁶ (0.047 x 10 ⁻⁶)
22	1.463 x 10 ⁻⁶ 1.397 x 10 ⁻⁶ 1.515 x 10 ⁻⁶	1.458 x 10 ⁻⁶ (0.059 x 10 ⁻⁶)	1.276 x 10 ⁻⁶ 1.227 x 10 ⁻⁶ 1.389 x 10 ⁻⁶	1.297 x 10 ⁻⁶ (0.082 x 10 ⁻⁶)

Appendix 9 : Brain AChE activity in *T. trichopterus* exposed to 3 pulse exposures of 24hr duration to 1 mg/l chlorpyrifos with intermittent 21d recovery periods.

Exposure	Post exposure (days)	AChE Activity (mM/hr/mg protein)			
		Test Species	Mean Activity (S.D)	Control Species	Mean Activity (S.D)
1	0	1.7838	1.8573 (0.0810)	3.5029	3.4610 (0.0726)
		1.9441		3.5029	
		1.8439		3.3771	
	1	2.4810	2.5201 (0.0390)	3.0565	3.0218 (0.0347)
		2.5592		2.9870	
		2.5201		3.0218	
	21	2.9806	2.9279 (0.0603)	3.3967	3.3835 (0.0999)
		2.8621		3.4762	
		2.9411		3.2775	
2	0	2.4629	2.4629 (0)	5.0657	5.0452 (0.0639)
		2.4629		5.0964	
		2.4629		4.9736	
	1	3.2436	3.2144 (0.0506)	5.6314	5.6714 (0.0399)
		3.1560		5.7113	
		3.2436		5.6714	
	21	5.4993	5.5309 (0.0986)	5.3387	5.3387 (0.0378)
		5.4519		5.3009	
		5.6416		5.3766	
3	0	1.8587	1.8353 (0.0202)	4.9880	5.0769 (0.0792)
		1.8237		5.1404	
		1.8237		5.1023	

Appendix 10 : Brain AChE activity in *T. trichopterus* exposed to 3 pulse exposures of 24 hr duration to 1 mg/l diazinon with intermittent 21d recovery periods.

Exposure	Post exposure (days)	AChE Activity (mM/hr/mg protein)			
		Test Species	Mean Activity (S.D)	Control Species	Mean Activity (S.D)
1	0	2.3113	2.4410	3.8144	3.7944
		2.4944	(0.1128)	3.6942	(0.0917)
		2.5173		3.8745	
	1	2.7362	2.7296	3.1115	3.0867
		2.6364	(0.0900)	2.9997	(0.0775)
		2.8161		3.1488	
	21	3.3598	3.2994	2.7936	2.8804
		3.1988	(0.0876)	2.9498	(0.0795)
		3.3396		2.8977	
2	0	4.3896	4.3490	5.8650	5.8916
		4.3490	(0.0406)	5.9448	(0.0460)
		4.3083		5.8650	
	1	4.8179	4.7677	5.9958	6.0436
		4.7050	(0.0574)	6.1394	(0.0829)
		4.7803		5.9958	
	21	5.6153	5.6153	5.6080	5.7406
		5.6153	(0.0000)	5.8069	(0.1148)
		5.6153		5.8069	
3	0	3.0913	3.0570	5.5796	5.5426
		3.0913	(0.0594)	5.5057	(0.0369)
		2.9883		5.5426	
	1	3.0317	3.0051	5.2039	5.2255
		2.9519	(0.0460)	5.2686	(0.0373)
		3.0317		5.2039	

Appendix 11 : Liver EROD activity in *T. trichopterus* exposed to 3 pulse exposures of 24 hr duration to 1 mg/l of chlorpyrifos with intermittent 21d recovery periods

Exposure	Post exposure (days)	EROD Activity (moles/min/mg protein)			
		Test Species	Mean Activity (S.D)	Control Species	Mean Activity (S.D)
1	0	26.0 x 10-6	26.04 x 10-6	4.36 x 10-6	4.458 x 10-6
		25.7 x 10-6	(0.296 x 10-6)	4.672 x 10-6	(0.185 x 10-6)
		26.335 x 10-6		4.343 x 10-6	
	1	7.532 x 10-6	7.69 x 10-6	9.695 x 10-6	9.749 x 10-6
		7.977 x 10-6	(0.249 x 10-6)	9.922 x 10-6	(0.153 x 10-6)
		7.562 x 10-6		9.63 x 10-6	
2	0	3.447 x 10-6	3.413 x 10-6	6.093 x 10-6	6.244 x 10-6
		3.429 x 10-6	(0.043 x 10-6)	6.394 x 10-6	(1.50 x 10-6)
		3.365 x 10-6		6.245 x 10-6	
	1	4.756 x 10-6	4.79 x 10-6	5.655 x 10-6	5.368 x 10-6
		5.091 x 10-6	(0.286 x 10-6)	5.081 x 10-6	(0.287 x 10-6)
		4.522 x 10-6		5.368 x 10-6	
	21	3.903 x 10-6	3.866 x 10-6	3.937 x 10-6	3.989 x 10-6
		3.829 x 10-6	(0.37 x 10-6)	4.041 x 10-6	(0.052 x 10-6)
		3.866 x 10-6		3.989 x 10-6	
3	0	3.596 x 10-6	3.596 x 10-6	3.849 x 10-6	3.849 x 10-6
		3.536 x 10-6	(0.06 x 10-6)	3.849 x 10-6	(0)
		3.656 x 10-6		3.849 x 10-6	
	1	4.128 x 10-6	4.144 x 10-6	1.268 x 10-6	1.216 x 10-6
		4.176 x 10-6	(0.028 x 10-6)	1.164 x 10-6	(0.052 x 10-6)
		4.128 x 10-6		1.216 x 10-6	

Appendix 12 : Liver EROD activity in *T. trichopterus* exposed to 3 pulse exposures of 24 hr duration to 1 mg/l of diazinon with intermittent 21d recovery periods

Exposure	Post exposure (days)	EROD Activity (moles/min/mg protein)			
		Test Species	Mean Activity (S.D)	Control Species	Mean Activity (S.D)
1	0	2.092 x 10 ⁻⁶	2.199 x 10 ⁻⁶ (0.215 x 10 ⁻⁶)	0.733 x 10 ⁻⁶	0.77 x 10 ⁻⁶ (0.034 x 10 ⁻⁶)
		2.447 x 10 ⁻⁶		0.801 x 10 ⁻⁶	
		2.058 x 10 ⁻⁶		0.776 x 10 ⁻⁶	
	1	6.604 x 10 ⁻⁶	6.517 x 10 ⁻⁶ (0.15 x 10 ⁻⁶)	4.652 x 10 ⁻⁶	4.636 x 10 ⁻⁶ (0.027 x 10 ⁻⁶)
		6.604 x 10 ⁻⁶		4.652 x 10 ⁻⁶	
		6.343 x 10 ⁻⁶		4.604 x 10 ⁻⁶	
	21	2.787 x 10 ⁻⁶	2.79 x 10 ⁻⁶ (0.079 x 10 ⁻⁶)	3.407 x 10 ⁻⁶	3.391 x 10 ⁻⁶ (0.121 x 10 ⁻⁶)
		2.871 x 10 ⁻⁶		3.504 x 10 ⁻⁶	
		2.713 x 10 ⁻⁶		3.263 x 10 ⁻⁶	
2	0	2.628 x 10 ⁻⁶	2.628 x 10 ⁻⁶ (0)	4.894 x 10 ⁻⁶	4.527 x 10 ⁻⁶ (0.32 x 10 ⁻⁶)
		2.628 x 10 ⁻⁶		4.384 x 10 ⁻⁶	
		2.628 x 10 ⁻⁶		4.303 x 10 ⁻⁶	
	1	3.849 x 10 ⁻⁶	4.163 x 10 ⁻⁶ (0.342 x 10 ⁻⁶)	3.44 x 10 ⁻⁶	3.2 x 10 ⁻⁶ (0.209 x 10 ⁻⁶)
		4.528 x 10 ⁻⁶		3.105 x 10 ⁻⁶	
		4.11 x 10 ⁻⁶		3.055 x 10 ⁻⁶	
	21	6.279 x 10 ⁻⁶	6.513 x 10 ⁻⁶ (0.254 x 10 ⁻⁶)	11.634 x 10 ⁻⁶	11.87 x 10 ⁻⁶ (0.376 x 10 ⁻⁶)
		6.784 x 10 ⁻⁶		11.672 x 10 ⁻⁶	
		6.474 x 10 ⁻⁶		12.304 x 10 ⁻⁶	
3	0	2.046 x 10 ⁻⁶	2.052 x 10 ⁻⁶ (0.026 x 10 ⁻⁶)	8.593 x 10 ⁻⁶	8.088 x 10 ⁻⁶ (0.443 x 10 ⁻⁶)
		2.081 x 10 ⁻⁶		7.912 x 10 ⁻⁶	
		2.029 x 10 ⁻⁶		7.759 x 10 ⁻⁶	
	1	6.429 x 10 ⁻⁶	6.381 x 10 ⁻⁶ (0.474 x 10 ⁻⁶)	3.046 x 10 ⁻⁶	3.176 x 10 ⁻⁶ (0.224 x 10 ⁻⁶)
		5.884 x 10 ⁻⁶		3.435 x 10 ⁻⁶	
		6.83 x 10 ⁻⁶		3.046 x 10 ⁻⁶	

Appendix 13: *In vitro* inhibition of brain AChE activity in *Trichogaster trichopterus* by chlorpyrifos

Insecticide Concentration (M)	O.D _{412nm}				$\frac{(OD_{control}-OD_{test})}{OD_{control}} \times 100$
	control	mean control (S.D)	test	mean test (S.D)	% inhibition
10-3	1.396 1.390 1.391	1.392 (0.003)	0.992	0.990	28.87
			0.992	(0.003)	
			0.986		
10-4			1.009	1.011	27.29
			1.012	(0.002)	
			1.014		
10-5			1.187	1.187	14.65
			1.190	(0.002)	
			1.186		
10-6			1.293	1.295	6.97
			1.296	(0.001)	
			1.296		
10-7			1.366	1.363	2.08
			1.361	(0.002)	
			1.363		

Appendix 14 : *In vitro* inhibition of brain AChE activity in *Trichogaster trichopterus* by diazinon.

Insecticide Concentration (M)	O.D _{412nm}				$\frac{(OD_{control}-OD_{test})}{OD_{control}} \times 100$
	control	mean control (S.D)	test	mean test (S.D)	% inhibition
10-3	1.670 1.649 1.672	1.663 (0.012)	0.692	0.700	57.90
			0.712	(0.010)	
			0.697		
10-4			0.970	0.973	41.45
			0.984	(0.009)	
			0.967		
10-5			1.127	1.136	31.65
			1.146	(0.009)	
			1.137		
10-6			1.132	1.133	31.83
			1.153	(0.018)	
			1.116		
10-7			1.225	1.231	25.95
			1.239	(0.007)	
			1.230		