

Table S4: Linear regressions on the number of total and unique loci (y) with genome size (x) considering three models: the 80 genomes altogether (Total model), split by supergroup (plants, protostomes and deuterostomes) and using only the groups with more than six species analyzed (plants, arthropods, fishes, amphibians, mammals and birds). Note that plants, in both the supergroup and group models, include information for the same species but are repeated to facilitate cross comparison in the two models (supergroup and group). For each enzyme, we provide the regression equation, R^2 and p-value. Significant p-values are in bold.

Model	Dataset	Enzyme	TOTAL LOCI			UNIQUE LOCI		
			Regression equation	R^2	p-value	Regression equation	R^2	p-value
Total	80 Genomes	Alfl	y=39516.4+88857.2x	0.64	<0.001	y=38512.3+78742.3x	0.56	<0.001
		CspCl	y=13363.2+45990.9x	0.82	<0.001	y=12914.2+40901.9x	0.73	<0.001
		Bael	y=8141.9+23321.8x	0.84	<0.001	y=8646.2+19230.6x	0.76	<0.001
Supergroup	Plants	Alfl	y=14100.4+46636.8x	0.84	<0.001	y=14474.8+35294.9x	0.89	<0.001
		CspCl	y=17441.3+30791.9x	0.95	<0.001	y=15360.2+24556.6x	0.87	<0.001
		Bael	y=1351.5+24113.0x	0.95	<0.001	y=6601.6+13544.5x	0.74	<0.001
	Protostomes	Alfl	y=11517.6+62585.7x	0.64	<0.001	y=14691.2+41316.6x	0.50	0.001
		CspCl	y=4030.0+35755.0x	0.77	<0.001	y=5870.8+23690.5x	0.68	<0.001
		Bael	y=2776.3+34910.2x	0.69	<0.001	y=4440.0+23671.1x	0.64	<0.001
	Deuterostomes	Alfl	y=91001.7+80646.0x	0.65	<0.001	y=89993.0+70892.1x	0.55	<0.001
		CspCl	y=25412.8+44657.3x	0.80	<0.001	y=26415.4+39487.1x	0.70	<0.001
		Bael	y=11710.2+22039.7x	0.79	<0.001	y=11385.8+19545.9x	0.75	<0.001
Group	Plants	Alfl	y=14100.4+46636.8x	0.84	<0.001	y=14474.8+35294.9x	0.89	<0.001
		CspCl	y=17441.3+30791.9x	0.95	<0.001	y=15360.2+24556.6x	0.87	<0.001
		Bael	y=1351.5+24113.0x	0.95	<0.001	y=6601.6+13544.5x	0.74	<0.001
	Arthropods	Alfl	y=11038.6+62495.6x	0.55	0.010	y=15815.8+35696.6x	0.35	0.056
		CspCl	y=1000.4+38025.5x	0.84	<0.001	y=4011.5+22832.6x	0.75	0.001
		Bael	y=6143.9+21652.7x	0.78	<0.001	y=7424.8+12540.4x	0.52	0.012
	Fishes	Alfl	y=30979.4+101071.6x	0.83	<0.001	y=33929.7+78683.4x	0.65	<0.001
		CspCl	y=7737.7+47845.7x	0.79	<0.001	y=8690.0+38334.5x	0.58	0.002
		Bael	y=3122.6+26218.0x	0.64	0.001	y=4568.8+17930.0x	0.67	<0.001
	Amphibians	Alfl	y=113053.3+69735.4x	0.84	0.013	y=131130.8+52317.7x	0.73	0.031
		CspCl	y=28376.3+36616.9x	0.93	0.001	y=38453.5+27438.5x	0.86	0.007
		Bael	y=24232.0+17361.0x	0.94	0.006	y=28353.1+12828.4x	0.87	0.006
	Mammals	Alfl	y=155748.6+49977.4x	0.20	0.154	y=182134.5+34503.3x	0.13	0.248
		CspCl	y=86161.0+25885.4x	0.24	0.113	y=100447.7+17500.3x	0.16	0.197
		Bael	y=35476.3+13169.7x	0.21	0.142	y=41153.8+9805.3x	0.15	0.218
	Birds	Alfl	y=-262154.0+460870.9x	0.95	<0.001	y=-228179.8+424133.5x	0.85	<0.001
		CspCl	y=-3285.3+82365.5x	0.96	<0.001	y=6260.4+71250.0x	0.78	0.001
		Bael	y=-60995.7+92940.4x	0.91	<0.001	y=-55092.6+86644.1x	0.86	<0.001