

**Table S1 Variance components for traits LL and LW based on 25 NAM populations**

PopId	LL							LW						
	$V_G$	$V_E$	$V_L$	$V_Y$	$V_{GL}$	$V_{GY}$	$H^2$	$V_G$	$V_E$	$V_L$	$V_Y$	$V_{GL}$	$V_{GY}$	$H^2$
1	3712.69	3415.65	<b>24.84</b>	<b>5.32</b>	<b>0.00</b>	570.36	0.77	49.15	85.97	<b>12.87</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>	0.70
2	2828.92	3184.92	<b>229.33</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.78	86.33	84.06	<b>0.95</b>	<b>1.57</b>	<b>0.00</b>	<b>0.58</b>	0.80
3	1899.01	3922.08	<b>0.00</b>	<b>4.60</b>	<b>186.65</b>	<b>363.68</b>	0.60	86.55	90.13	<b>0.20</b>	<b>3.44</b>	<b>0.00</b>	<b>3.10</b>	0.78
4	3117.24	2906.74	<b>82.00</b>	<b>132.28</b>	<b>101.53</b>	<b>0.00</b>	0.80	42.18	58.18	<b>5.95</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.74
5	2640.95	2618.83	<b>606.87</b>	<b>20.66</b>	<b>266.01</b>	<b>0.00</b>	0.77	53.61	57.78	<b>2.28</b>	<b>0.00</b>	<b>1.00</b>	<b>0.00</b>	0.78
6	2394.58	3030.18	<b>17.28</b>	<b>91.56</b>	<b>185.98</b>	<b>0.00</b>	0.74	30.49	89.14	<b>1.92</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.58
7	2693.34	2201.03	<b>90.44</b>	<b>401.90</b>	<b>53.80</b>	<b>0.00</b>	0.82	80.22	72.46	<b>0.80</b>	<b>16.53</b>	<b>0.00</b>	<b>0.00</b>	0.82
8	2643.83	2778.52	<b>8.20</b>	<b>317.28</b>	<b>0.00</b>	<b>336.46</b>	0.75	41.57	64.57	<b>0.89</b>	<b>4.29</b>	<b>0.00</b>	<b>0.00</b>	0.72
9	2202.03	3048.93	<b>36.66</b>	<b>394.20</b>	<b>10.21</b>	<b>0.00</b>	0.74	55.58	78.83	<b>5.55</b>	<b>1.37</b>	<b>0.00</b>	<b>0.00</b>	0.74
10	2841.07	2128.14	<b>28.96</b>	<b>136.27</b>	<b>0.00</b>	<b>63.59</b>	0.83	64.56	50.93	<b>0.69</b>	<b>4.66</b>	<b>1.58</b>	<b>7.40</b>	0.79
11	2923.63	3782.49	<b>0.00</b>	<b>223.94</b>	<b>357.97</b>	<b>0.00</b>	0.72	38.51	89.52	<b>12.38</b>	<b>4.27</b>	<b>0.00</b>	<b>0.00</b>	0.63
12	3043.85	2414.63	<b>195.07</b>	<b>198.70</b>	414.83	<b>0.00</b>	0.79	54.25	71.07	<b>0.48</b>	<b>0.33</b>	<b>2.64</b>	<b>0.00</b>	0.74
13	3096.70	2391.68	<b>380.26</b>	<b>38.62</b>	<b>0.00</b>	<b>0.00</b>	0.84	60.14	68.16	<b>17.25</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.78
14	2432.85	2367.77	<b>10.74</b>	<b>457.33</b>	<b>0.00</b>	<b>165.20</b>	0.78	49.85	53.55	<b>0.25</b>	<b>0.03</b>	<b>0.00</b>	<b>0.00</b>	0.79
15	2872.87	2381.87	<b>0.00</b>	<b>43.40</b>	<b>259.27</b>	<b>215.36</b>	0.78	62.33	85.35	<b>0.84</b>	<b>0.25</b>	<b>0.00</b>	6.75	0.72
16	1949.81	3066.43	<b>0.00</b>	<b>686.50</b>	<b>0.00</b>	<b>0.00</b>	0.72	60.48	78.03	<b>0.99</b>	<b>12.48</b>	<b>0.00</b>	<b>2.92</b>	0.74
17	1605.53	3316.92	<b>1388.21</b>	<b>247.90</b>	<b>220.81</b>	<b>0.00</b>	0.63	71.48	53.51	<b>0.00</b>	<b>14.17</b>	<b>0.00</b>	5.12	0.82
18	1195.92	2718.24	<b>86.83</b>	<b>104.09</b>	<b>81.95</b>	<b>0.00</b>	0.62	26.61	68.20	<b>0.33</b>	<b>5.75</b>	<b>0.00</b>	<b>1.53</b>	0.60
19	2329.66	3426.67	<b>121.82</b>	<b>0.00</b>	<b>194.02</b>	521.18	0.66	55.51	55.54	<b>1.95</b>	<b>0.00</b>	<b>1.42</b>	<b>0.00</b>	0.79
20	2076.13	1945.32	<b>364.59</b>	<b>95.58</b>	<b>50.04</b>	513.25	0.73	59.99	59.68	<b>0.00</b>	<b>0.97</b>	<b>0.00</b>	<b>0.00</b>	0.80
21	3077.63	2317.01	<b>0.00</b>	<b>0.00</b>	<b>32.56</b>	<b>0.00</b>	0.84	44.40	64.85	<b>0.98</b>	<b>6.78</b>	11.19	<b>0.00</b>	0.67
22	1987.63	2808.07	<b>235.30</b>	<b>1353.64</b>	<b>152.09</b>	468.61	0.66	66.60	94.38	<b>0.04</b>	<b>29.04</b>	<b>6.41</b>	<b>0.00</b>	0.71
23	2171.32	3692.89	<b>76.03</b>	<b>11.10</b>	<b>0.00</b>	<b>0.00</b>	0.70	49.86	70.49	<b>0.36</b>	<b>18.46</b>	<b>1.59</b>	<b>0.00</b>	0.73
24	2489.81	3212.06	<b>0.00</b>	950.74	<b>0.00</b>	<b>0.00</b>	0.76	58.50	53.30	<b>0.16</b>	<b>2.97</b>	<b>3.58</b>	<b>0.00</b>	0.79
25	2212.55	2730.97	301.91	641.40	352.19	<b>137.16</b>	0.70	58.45	61.95	<b>0.14</b>	6.18	<b>0.00</b>	<b>0.00</b>	0.79
Mean	2497.58	2872.32	171.41	262.28	116.80	134.19	0.74	56.29	70.39	2.73	5.34	1.18	1.10	0.74

Bold in the table indicates the variance component is not significant at  $\alpha = 0.05$ .