

**Table S2.** Principal component analysis (PCA) on meteorological data and fertility level of Bi90 *D. melanogaster* strain.

Principal component loadings						
Variable	PC1	PC2	PC3	PC4	PC5	PC6
<b>Temperature</b>	<b>+0.926</b>	+0.204	-0.204	-0.043	+0.123	+0.207
<b>Humidity</b>	<b>+0.657</b>	-0.153	+0.459	+0.531	-0.227	+0.013
<b>Wind speed</b>	<b>-0.763</b>	+0.245	+0.316	+0.391	+0.318	+0.061
<b>Air Pressure</b>	<b>-0.911</b>	-0.235	+0.065	-0.109	-0.263	+0.172
<b>Air Pressure change</b>	+0.247	<b>-0.761</b>	+0.488	-0.289	+0.192	+0.016
<b>Fertility (log)</b>	+0.107	<b>+0.683</b>	+0.617	-0.369	-0.078	-0.004
	PC1	PC2	PC3	PC4	PC5	PC6
<b>PC Eigenvalue</b>	2.775	1.226	0.974	0.669	0.280	0.077
<b>Proportion of variance</b>	0.462	0.204	0.162	0.111	0.047	0.013
<b>Cumulative variance</b>	0.462	0.667	0.829	0.941	0.987	1.000

\* - supplementary variables were not used in PCA to determine PCs