**Indirect estimates reveal the potential of transgene flow in the crop-wild-weed *Sorghum bicolor* complex in its center of origin, Ethiopia**

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**Table S1**. Geographical features of the collection sites of the populations used for crop-wild gene flow

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Region of collection | Name of collection place | Wild/cultivar | Population code | Position | Altitude (m) |
| Gibe | Berha/Sateri | Wild | W1 | 8°12’E,37033’N | 1261 |
|  | Ghibe  river bridge | Wild | W2 | 8°13’E, 37°34’N | 1115 |
|  | Boqata and Serti | Wild | W3 | 8°15’E,37°33’N | 1607 |
| Pawe | Kanensan | Wild | W4 | 11°01’E, 36°27’N | 1682 |
|  | Village-3 | Wild | W5 | 11°13’E, 36°21’N | 1045 |
|  | Village-7 | Wild | W6 | 11°21’E, 36°23’N | 1076 |
|  | Mandura | Wild | W7 | 11°05’E, 36°25’N | 1404 |
| Wollo | Hijira | Wild | W8 | 10°38’E, 39°55’N | 1425 |
|  | Abuare | Wild | W9 | 12°05’E, 39°39’N | 1426 |
|  | Zobel | Wild | W10 | 12°11’E, 39°46’N | 1712 |
|  | Kobo | Wild | W11 | 12°08’E, 39°37’N | 1500 |
|  | Alamata-Gerjele | Wild | W12 | 12°26’E, 39°36’N | 1462 |
| Gibe | Gibe river bridge | Cultivar | C1 | 8°13’E, 37°34’N | 1115 |
|  | Gibe-ILRI | Cultivar | C2 | 8°14’E, 37°34’N | 1149 |
| Pawe | village-6 | Cultivar | C3 | 11°18’E, 36°24’N | 1088 |
|  | Mandura | Cultivar | C4 | 11°05’E, 36°25’N | 1404 |
| Wollo | Jara Kechema | Cultivar | C5 | 10°30’E, 39°56’N | 1433 |
|  | Abuare | Cultivar | C6 | 12°05’E, 39°39’N | 1426 |
|  | Kobo | Cultivar | C7 | 12°08’E, 39°37’N | 1500 |
|  | Alamata-Gerjele | Cultivar | C8 | 12°26’E, 39°36’N | 1486 |

Table S2. Mid parent heterosis (%) for different life history traits measured in wild × crop hybrids

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cross | GERM | DTE | DTF | PH | TILL | HL | HW | LN | LL | LW | NSPP |
| H2-1 × WSV 387 | -3.1 | -9.1 | -21.4\*\* | 62.0\*\* | 31.4 | 11.3 | 12.0 | -20.6\*\* | -17.3 | -13.8\*\* | 143.8\*\* |
| H2-16 × 76T1#23 | - | 2.0 | -3.4 | 46.5\*\* | 25.5 | 33.6\*\* | 28.5 | -8.5 | -10.9 | -8.8 | 208.5\*\* |
| T1-1 × WSV 387 | 9.9\*\* | -6.4 | -18.1\*\* | 47.5\*\* | 0.7 | 18.4\*\* | 43.2\* | -15.8\*\* | -20.3\*\* | -6.5 | 197.2\*\* |
| W5-20 × 76T1#23 | 3.7 | 2.2 | 0.9 | 9.1 | 12.7 | 14.2 | 4.1 | -5.7 | -3.7 | -8.1\* | 45.0 |
| IS18822 × WSV 387 | 19.3\*\* | -1.8 | -18.3\*\* | 60.4\*\* | -13.1 | 20.7 | 43.6\*\* | -19.7\*\* | -19.0 | -10.4\* | 34.4 |
| IS14485 × 76T1#23 | - | 2.1 | -6.6 | 23.6\* | 3.7 | 3.7 | 1.2 | 1.6 | -13.0 | -1.5 | 61.4 |
| IS18804 × 76T1#23 | 12.6\*\* | 5.2 | -7.0 | 28.5\* | 27.5 | 26.7\* | 25.3 | -10.4\* | -5.3 | -12.4\*\* | 216.8\*\* |

\* Significantly different (p<0.05), \*\* significantly different (p<0.01); GERM= germination percentage; DTE= days to emergence; DTF= days to flowering; PH= plant height; HL= head length; HW= head width; LL= leaf length; LW= leaf width; TILL= number of tillers per plant; LN= leaf number; NSPP= number of seeds per panicle

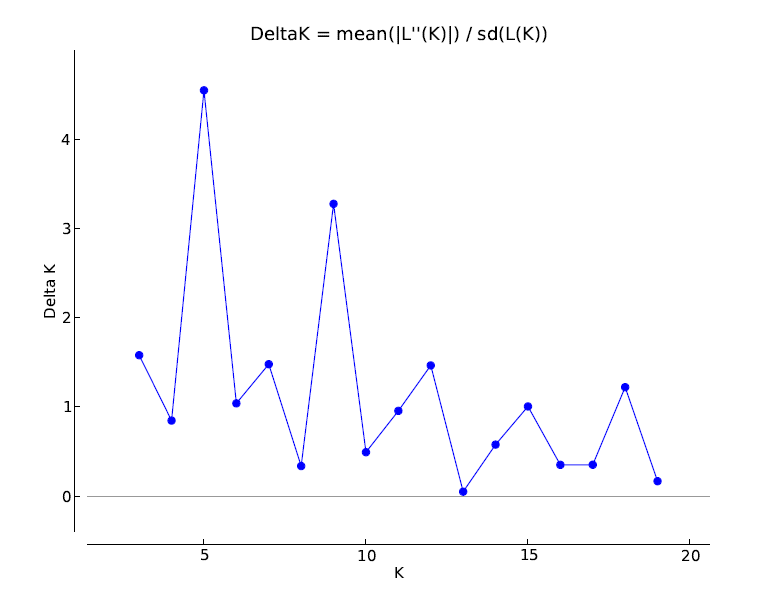


Figure S1. Evanno et al. (2005) prediction of the optimum number of clusters. The peak value indicates that the optimum number of clusters was 5