**Table S6** Significant cases of linkage disequilibrium between markers after BY FDR correction. IR = Irina, LS = Lucky Strike, QS = Quest, SP = Snake Pit, BS = Broken Spur, SM = Semenov

| **Population** | **Gene 1** | **Gene 2** | **p value** |
| --- | --- | --- | --- |
| IR | c29533\_g1\_i1 | c61290\_g11\_i1 | 0.0000 |
|  | c58708\_g7\_i1 | c42562\_g1\_i1 | 0.0009 |
| LS | c62359\_g8\_i4 | c47041\_g1\_i1 | 0.0023 |
| QS | c29533\_g1\_i1 | c61290\_g11\_i1 | 0.0023 |
| SP | c29533\_g1\_i1 | c61290\_g11\_i1 | 0.0000 |
| BS | c62359\_g8\_i4 | c47041\_g1\_i1 | 0.0000 |
|  | c29533\_g1\_i1 | c61290\_g11\_i1 | 0.0000 |
|  | c58708\_g7\_i1 | c42562\_g1\_i1 | 0.0000 |
|  | c29533\_g1\_i1 | c35975\_g1\_i1 | 0.0000 |
|  | c61290\_g11\_i1 | c35975\_g1\_i1 | 0.0000 |
|  | c36135\_g1\_i2 | c35975\_g1\_i1 | 0.0000 |
|  | c41151\_g1\_i3 | c29533\_g1\_i1 | 0.0001 |
|  | c58708\_g7\_i1 | c29533\_g1\_i1 | 0.0001 |
|  | c62359\_g8\_i4 | c34434\_g1\_i1 | 0.0001 |
|  | c54079\_g1\_i1 | c62359\_g8\_i4 | 0.0001 |
|  | c54079\_g1\_i1 | c34434\_g1\_i1 | 0.0001 |
|  | c54079\_g1\_i1 | c47041\_g1\_i1 | 0.0001 |
|  | c58708\_g7\_i1 | c61290\_g11\_i1 | 0.0002 |
|  | c41151\_g1\_i3 | c61290\_g11\_i1 | 0.0002 |
|  | c59751\_g2\_i3 | c36135\_g1\_i2 | 0.0002 |
|  | c41151\_g1\_i3 | c55170\_g1\_i1 | 0.0002 |
|  | c12535\_g1\_i1 | c62359\_g8\_i4 | 0.0003 |
|  | c34434\_g1\_i1 | c61290\_g11\_i1 | 0.0003 |
|  | c34434\_g1\_i1 | c29533\_g1\_i1 | 0.0003 |
|  | c34434\_g1\_i1 | c47041\_g1\_i1 | 0.0005 |
|  | c12535\_g1\_i1 | c47041\_g1\_i1 | 0.0005 |
|  | c34434\_g1\_i1 | c35975\_g1\_i1 | 0.0007 |
|  | c42562\_g1\_i1 | c35975\_g1\_i1 | 0.0012 |
|  | c36135\_g1\_i2 | c34434\_g1\_i1 | 0.0015 |
|  | c36135\_g1\_i2 | c29533\_g1\_i1 | 0.0015 |
|  | c29533\_g1\_i1 | c42562\_g1\_i1 | 0.0016 |
|  | c61290\_g11\_i1 | c42562\_g1\_i1 | 0.0016 |
|  | c41151\_g1\_i3 | c35975\_g1\_i1 | 0.0021 |
|  | c23539\_g1\_i1 | c42562\_g1\_i1 | 0.0021 |
|  | c58708\_g7\_i1 | c35975\_g1\_i1 | 0.0022 |
|  | c41151\_g1\_i3 | c42562\_g1\_i1 | 0.0024 |
|  | c36135\_g1\_i2 | c62359\_g8\_i4 | 0.0035 |
|  | c59751\_g2\_i3 | c29533\_g1\_i1 | 0.0038 |
|  | c41151\_g1\_i3 | c58708\_g7\_i1 | 0.0041 |
|  | c36135\_g1\_i2 | c61290\_g11\_i1 | 0.0042 |
|  | c54079\_g1\_i1 | c12535\_g1\_i1 | 0.0043 |
|  | c54079\_g1\_i1 | c59181\_g1\_i1 | 0.0054 |
|  | c54079\_g1\_i1 | c55170\_g1\_i1 | 0.0055 |
|  | c55170\_g1\_i1 | c29533\_g1\_i1 | 0.0057 |
|  | c54079\_g1\_i1 | c35975\_g1\_i1 | 0.0063 |
|  | c62359\_g8\_i4 | c42562\_g1\_i1 | 0.0066 |
| SM | c29533\_g1\_i1 | c61290\_g11\_i1 | 0.0013 |
|  | c62359\_g8\_i4 | c47041\_g1\_i1 | 0.0013 |