**Table S1. Plant materials in this study.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Entry name in this study | IRGC | Variety name/IRGC | Country of origin | NSF-TV code |
| IRGC80721 | *O.nivara* | IRGC80721 | Myanmar | not available |
| IRGC82023 | *O.nivara* | IRGC82023 | India | not available |
| IRGC82025 | *O.nivara* | IRGC82025 | India | not available |
| IRGC82026 | *O.nivara* | IRGC82026 | India | not available |
| IRGC82028 | *O.nivara* | IRGC82028 | India | not available |
| IRGC82029 | *O.nivara* | IRGC82029 | India | not available |
| IRGC89054 | *O.nivara* | IRGC89054 | Laos | not available |
| IRGC89055 | *O.nivara* | IRGC89055 | Laos | not available |
| IRGC92030 | *O.nivara* | IRGC92030 | India | not available |
| IRGC92037 | *O.nivara* | IRGC92037 | Thailand | not available |
| IRGC93180 | *O.nivara* | IRGC93180 | Nepal | not available |
| IRGC93182 | *O.nivara* | IRGC93182 | Nepal | not available |
| IRGC93184 | *O.nivara* | IRGC93184 | Nepal | not available |
| IRGC93185 | *O.nivara* | IRGC93185 | Nepal | not available |
| IRGC93186 | *O.nivara* | IRGC93186 | Nepal | not available |
| IRGC93189 | *O.nivara* | IRGC93189 | Nepal | not available |
| IRGC93196 | *O.nivara* | IRGC93196 | Nepal | not available |
| IRGC99600 | *O.nivara* | IRGC99600 | Cambodia | not available |
| IRGC100189 | *O.nivara* | IRGC100189 | Malaysia | not available |
| IRGC100593 | *O.nivara* | IRGC100593 | Taiwan | not available |
| IRGC100916 | *O.nivara* | IRGC100916 | China | not available |
| IRGC103821 | *O.nivara* | IRGC103821 | China | not available |
| IRGC103824 | *O.nivara* | IRGC103824 | China | not available |
| IRGC104969 | *O.nivara* | IRGC104969 | China | not available |
| IRGC80538 | *O.rufipogon* | IRGC80538 | India | not available |
| IRGC80543 | *O.rufipogon* | IRGC80543 | India | not available |
| IRGC80605 | *O.rufipogon* | IRGC80605 | India | not available |
| IRGC105400 | *O.rufipogon* | IRGC105400 | China | not available |
| IRGC105402 | *O.rufipogon* | IRGC105402 | China | not available |
| IRGC105567 | *O.rufipogon* | IRGC105567 | Indonesia | not available |
| IRGC105709 | *O.rufipogon* | IRGC105709 | India | not available |
| IRGC105711 | *O.rufipogon* | IRGC105711 | India | not available |
| IRGC105861 | *O.rufipogon* | IRGC105861 | Thailand | not available |
| IRGC105868 | *O.rufipogon* | IRGC105868 | Bangladesh | not available |
| IRGC105883 | *O.rufipogon* | IRGC105883 | Bangladesh | not available |
| IRGC105884 | *O.rufipogon* | IRGC105884 | Bangladesh | not available |
| IRGC105887 | *O.rufipogon* | IRGC105887 | Bangladesh | not available |
| IRGC105908 | *O.rufipogon* | IRGC105908 | Thailand | not available |
| IRGC106036 | *O.rufipogon* | IRGC106036 | Malaysia | not available |
| IRGC106039 | *O.rufipogon* | IRGC106039 | India | not available |
| IRGC106081 | *O.rufipogon* | IRGC106081 | India | not available |
| IRGC106149 | *O.rufipogon* | IRGC106149 | Laos | not available |
| IRGC106166 | *O.rufipogon* | IRGC106166 | Vietnam | not available |
| IRGC106274 | *O.rufipogon* | IRGC106274 | Papua New Ginea | not available |
| IRGC106276 | *O.rufipogon* | IRGC106276 | Papua New Ginea | not available |
| IRGC106279 | *O.rufipogon* | IRGC106279 | Papua New Ginea | not available |
| IRGC113651 | *O.rufipogon* | IRGC113651 | Vietnam | not available |
| IRGC100117 | *O.barthii* | IRGC100117 | Guinea | not available |
| IRGC100119 | *O.barthii* | IRGC100119 | Mali | not available |
| IRGC104103 | *O.barthii* | IRGC104103 | Chad | not available |
| IRGC104983 | *O.barthii* | IRGC104983 | Niger | not available |
| IRGC106239 | *O.barthii* | IRGC106239 | Niger | not available |
| IRGC82034 | *O.glumaepatula* | IRGC82034 | Brazil | not available |
| IRGC101960 | *O.glumaepatula* | IRGC101960 | Brazil | not available |
| IRGC103812 | *O.glumaepatula* | IRGC103812 | Venezuela | not available |
| IRGC105465 | *O.glumaepatula* | IRGC105465 | French Guiana | not available |
| IRGC105561 | *O.glumaepatula* | IRGC105561 | Colombia | not available |
| IRGC106232 | *O.glumaepatula* | IRGC106232 | Brazil | not available |
| IRGC10545 | *O.glaberrima* | IRGC10545 | unknown | not available |
| IRGC86741 | *O.glaberrima* | IRGC86741 | Senegal | not available |
| IRGC96717 | *O.glaberrima* | IRGC96717 | Senegal | not available |
| IRGC96718 | *O.glaberrima* | IRGC96718 | Senegal | not available |
| IRGC96790 | *O.glaberrima* | IRGC96790 | Nigeria | not available |
| IRGC96793 | *O.glaberrima* | IRGC96793 | Nigeria | not available |
| IRGC96864 | *O.glaberrima* | IRGC96864 | Liberia | not available |
| IRGC96868 | *O.glaberrima* | IRGC96868 | Liberia | not available |
| IRGC102556 | *O.glaberrima* | IRGC102556 | Liberia | not available |
| IRGC102577 | *O.glaberrima* | IRGC102577 | Liberia | not available |
| IRGC103477 | *O.glaberrima* | IRGC103477 | Ivory Coast | not available |
| IRGC104589 | *O.glaberrima* | IRGC104589 | Burkina Faso | not available |
| IRGC112576 | *O.glaberrima* | IRGC112576 | Burkina Faso | not available |
| RAM118 | *O.glaberrima* | RAM118 | Mali | not available |
| RAM121 | *O.glaberrima* | RAM121 | Mali | not available |
| RAM131 | *O.glaberrima* | RAM131 | Mali | not available |
| RAM24 | *O.glaberrima* | RAM24 | Mali | not available |
| RAM3 | *O.glaberrima* | RAM3 | Mali | not available |
| RAM86 | *O.glaberrima* | RAM86 | Mali | not available |
| TOG5890 | *O.glaberrima* | TOG5890 | Western Africa | not available |
| TOG6472 | *O.glaberrima* | TOG6472 | Western Africa | not available |
| TOG6508 | *O.glaberrima* | TOG6508 | Western Africa | not available |
| TOG7235 | *O.glaberrima* | TOG7235 | Western Africa | not available |
| TOG7442 | *O.glaberrima* | TOG7442 | Western Africa | not available |
| IRGC92664 | *O.longistaminata* | IRGC92664 | Cameroon | not available |
| IRGC93175 | *O.longistaminata* | IRGC93175 | Madagascar | not available |
| IRGC99557 | *O.longistaminata* | IRGC99557 | Vietnam | not available |
| IRGC110404 | *O.longistaminata* | IRGC110404 | India | not available |
| IRGC93260 | *O.meridionalis* | IRGC93260 | Indonesia | not available |
| IRGC93262 | *O.meridionalis* | IRGC93262 | Indonesia | not available |
| IRGC93264 | *O.meridionalis* | IRGC93264 | Indonesia | not available |
| IRGC105301 | *O.meridionalis* | IRGC105301 | Australia | not available |
| IRGC105302 | *O.meridionalis* | IRGC105302 | Australia | not available |
| IRGC105305 | *O.meridionalis* | IRGC105305 | Australia | not available |
| IRGC105306 | *O.meridionalis* | IRGC105306 | Australia | not available |
| ADM1 | ADMIX | 923 | Madagascar | 272 |
| ADM2 | ADMIX | Arabi | Egypt | 244 |
| ADM3 | ADMIX | ARC10086 | India | 358 |
| ADM4 | ADMIX | Baldo | Italy | 264 |
| ADM5 | ADMIX | Bengal | United States | 622 |
| ADM6 | ADMIX | Berenj | Afghanistan | 340 |
| ADM7 | ADMIX | BlueRose | United States | 20 |
| ADM8 | ADMIX | BlueRoseSupreme | United States | 182 |
| ADM9 | ADMIX | Breviaristata | Portugal | 376 |
| ADM10 | ADMIX | C1-6-5-3 | Mexico | 278 |
| ADM11 | ADMIX | CI11011 | United States | 389 |
| ADM12 | ADMIX | CI11026 | United States | 390 |
| ADM13 | ADMIX | Dam | Thailand | 40 |
| ADM14 | ADMIX | Darmali | Nepal | 41 |
| ADM15 | ADMIX | DobleCarolinaRinaldoBarsani | Uruguay | 305 |
| ADM16 | ADMIX | Early | United States | 627 |
| ADM17 | ADMIX | Estrela | Colombia | 237 |
| ADM18 | ADMIX | Gerdeh | Iran | 55 |
| ADM19 | ADMIX | GotakGatik | Indonesia | 60 |
| ADM20 | ADMIX | Guineandao | Guinea | 253 |
| AROM1 | AROMATIC | Basmati | Pakistan | 12 |
| AROM2 | AROMATIC | BicoBranco | Brazil | 16 |
| AROM3 | AROMATIC | DomZard | Iran | 191 |
| AROM4 | AROMATIC | Dom-Sofid | Iran | 640 |
| AROM5 | AROMATIC | Dom-sufid | Iran | 45 |
| AROM6 | AROMATIC | Firooz | Iran | 53 |
| AROM7 | AROMATIC | Kitrana508 | Madagascar | 93 |
| AROM8 | AROMATIC | Lambayeque1 | Peru | 373 |
| AROM9 | AROMATIC | N12 | India | 112 |
| AROM10 | AROMATIC | NSF-TV160 | Unknown | 160 |
| AROM11 | AROMATIC | NSF-TV260 | Unknown | 260 |
| AROM12 | AROMATIC | NSF-TV5 | Unknown | 5 |
| AROM13 | AROMATIC | Pankhari203 | India | 124 |
| AROM14 | AROMATIC | SadriBelyi | Azerbaijan | 221 |
| AUS1 | AUS | 9524 | India | 357 |
| AUS2 | AUS | ARC10376 | India | 353 |
| AUS3 | AUS | ARC6578 | India | 178 |
| AUS4 | AUS | ARC7229 | India | 6 |
| AUS5 | AUS | Aswina330 | Bangladesh | 312 |
| AUS6 | AUS | BJ1 | India | 18 |
| AUS7 | AUS | BlackGora | India | 19 |
| AUS8 | AUS | CA902/B/2/1 | Chad | 228 |
| AUS9 | AUS | Chuan4 | Taiwan | 33 |
| AUS10 | AUS | Coarse | Pakistan | 370 |
| AUS11 | AUS | CTG1516 | Bangladesh | 314 |
| AUS12 | AUS | DD62 | Bangladesh | 316 |
| AUS13 | AUS | DhalaShaitta | Bangladesh | 44 |
| AUS14 | AUS | DJ123 | Bangladesh | 317 |
| AUS15 | AUS | DJ24 | Bangladesh | 318 |
| AUS16 | AUS | DK12 | Bangladesh | 319 |
| AUS17 | AUS | DM43 | Bangladesh | 320 |
| AUS18 | AUS | DM56 | Bangladesh | 321 |
| AUS19 | AUS | DM59 | Bangladesh | 322 |
| AUS20 | AUS | DNJ140 | Bangladesh | 323 |
| IND1 | IND | 519 | Uruguay | 304 |
| IND2 | IND | 93-11 | China | 398 |
| IND3 | IND | Ai-Chiao-Hong | China | 3 |
| IND4 | IND | Aijiaonante | China | 234 |
| IND5 | IND | Baguamon14 | Bangladesh | 11 |
| IND6 | IND | Binulawan | Philippines | 17 |
| IND7 | IND | BR24 | Bangladesh | 313 |
| IND8 | IND | ByakkokuY5006Seln | Australia | 21 |
| IND9 | IND | C101A51 | Philippines | 626 |
| IND10 | IND | ChangCh'SangHsuTao | China | 349 |
| IND11 | IND | Chau | Vietnam | 29 |
| IND12 | IND | ChiemChanh | Vietnam | 30 |
| IND13 | IND | China1039 | China | 348 |
| IND14 | IND | CO18 | India | 35 |
| IND15 | IND | CriolloLaFria | Venezuela | 189 |
| IND16 | IND | Dawebyan | Myanmar | 315 |
| IND17 | IND | DeeGeoWooGen | Taiwan | 43 |
| IND18 | IND | Djimoron | Guinea | 252 |
| IND19 | IND | ECIA76-S89-1 | Cuba | 241 |
| IND20 | IND | EMATAA16-34 | Myanmar | 325 |
| IND21 | IND | Guan-Yin-Tsan | China | 61 |
| IND22 | IND | HonChim | Hong Kong | 254 |
| IND23 | IND | HsiaChiohKehTu | Taiwan | 66 |
| IND24 | IND | HunanEarlyDwarfNo.3 | China | 231 |
| IND25 | IND | IR36 | Philippines | 71 |
| IND26 | IND | IR8 | Philippines | 72 |
| IND27 | IND | IR-44595 | Nepal | 284 |
| IND28 | IND | IR64 | Philippines | 612 |
| IND29 | IND | IRGA409 | Brazil | 74 |
| IND30 | IND | Jasmine85 | Philippines | 620 |
| TEJ1 | TEJ | 68-2 | France | 177 |
| TEJ2 | TEJ | 56-122-23 | Thailand | 311 |
| TEJ3 | TEJ | Agostano | Italy | 1 |
| TEJ4 | TEJ | Agusita | Hungary | 257 |
| TEJ5 | TEJ | Amposta | Puerto Rico | 290 |
| TEJ6 | TEJ | ASD1 | India | 355 |
| TEJ7 | TEJ | Azerbaidjanica | Azerbaijan | 220 |
| TEJ8 | TEJ | Baber | India | 9 |
| TEJ9 | TEJ | BaghlaniNangarhar | Afghanistan | 10 |
| TEJ10 | TEJ | Bahia | Spain | 297 |
| TEJ11 | TEJ | Bellardone | France | 179 |
| TEJ12 | TEJ | Benllok | Peru | 180 |
| TEJ13 | TEJ | Beonjo | South Korea | 15 |
| TEJ14 | TEJ | Bergreis | Austria | 181 |
| TEJ15 | TEJ | Biser1 | Bulgaria | 225 |
| TEJ16 | TEJ | Bombilla | Spain | 295 |
| TEJ17 | TEJ | Bombon | Spain | 184 |
| TEJ18 | TEJ | BulZo | South Korea | 186 |
| TEJ19 | TEJ | Bulgare | France | 250 |
| TEJ20 | TEJ | Caucasica | Former Soviet Union | 248 |
| TEJ21 | TEJ | Chibica | Mozambique | 283 |
| TEJ22 | TEJ | Chinese | China | 31 |
| TEJ23 | TEJ | Chodongji | South Korea | 32 |
| TEJ24 | TEJ | CS-M3 | United States | 36 |
| TEJ25 | TEJ | Deokjeokjodo | Korea | 368 |
| TEJ26 | TEJ | Desvauxii | Former Soviet Union | 247 |
| TEJ27 | TEJ | Dosel | Spain | 296 |
| TEJ28 | TEJ | EarlyWataribune | Japan | 51 |
| TEJ29 | TEJ | EdomenScented | Japan | 363 |
| TEJ30 | TEJ | EhIaChiu | Taiwan | 52 |
| TRJ1 | TRJ | 27 | Dominican Republic | 242 |
| TRJ2 | TRJ | 318 | Turkey | 384 |
| TRJ3 | TRJ | 325 | Taiwan | 381 |
| TRJ4 | TRJ | 583 | Ecuador | 176 |
| TRJ5 | TRJ | Guatemala 1021 | Guatemala | 352 |
| TRJ6 | TRJ | Arias | Indonesia | 7 |
| TRJ7 | TRJ | AsseYPung | Philippines | 8 |
| TRJ8 | TRJ | Azucena | Philippines | 174 |
| TRJ9 | TRJ | Azucena | Philippines | 635 |
| TRJ10 | TRJ | B6616A4-22-Bk-5-4 | United States | 167 |
| TRJ11 | TRJ | Basmati217 | India | 14 |
| TRJ12 | TRJ | BoaVista | El Salvador | 183 |
| TRJ13 | TRJ | BritishHondurasCreole | Belize | 185 |
| TRJ14 | TRJ | C57-5043 | United States | 187 |
| TRJ15 | TRJ | Caawa/Fortuna6-103-15 | Taiwan | 22 |
| TRJ16 | TRJ | CanellaDeFerro | Brazil | 23 |
| TRJ17 | TRJ | CarolinaGold | United States | 24 |
| TRJ18 | TRJ | CarolinaGold | United States | 25 |
| TRJ19 | TRJ | CarolinaGoldSel | United States | 26 |
| TRJ20 | TRJ | Cenit | Argentina | 342 |

Table S2. SNP diversity of 93 AA accessions of wild relatives of rice using 96 SNP markers.

|  |  |  |
| --- | --- | --- |
| Designation | species | amplification freq |
| IRGC80721 | *O. nivara* | 0.99 |
| IRGC82023 | *O. nivara* | 1.00 |
| IRGC82025 | *O. nivara* | 0.96 |
| IRGC82026 | *O. nivara* | 0.92 |
| IRGC82028 | *O. nivara* | 0.91 |
| IRGC82029 | *O. nivara* | 0.99 |
| IRGC89054 | *O. nivara* | 0.93 |
| IRGC89055 | *O. nivara* | 0.95 |
| IRGC92030 | *O. nivara* | 0.94 |
| IRGC92037 | *O. nivara* | 0.96 |
| IRGC93180 | *O. nivara* | 0.94 |
| IRGC93182 | *O. nivara* | 0.95 |
| IRGC93184 | *O. nivara* | 0.97 |
| IRGC93185 | *O. nivara* | 0.86 |
| IRGC93186 | *O. nivara* | 0.95 |
| IRGC93189 | *O. nivara* | 0.93 |
| IRGC93196 | *O. nivara* | 0.94 |
| IRGC99600 | *O. nivara* | 0.93 |
| IRGC100189 | *O. nivara* | 0.93 |
| IRGC100593 | *O. nivara* | 0.97 |
| IRGC100916 | *O. nivara* | 0.94 |
| IRGC103821 | *O. nivara* | 0.95 |
| IRGC103824 | *O. nivara* | 0.92 |
| IRGC104969 | *O. nivara* | 0.97 |
| IRGC80538 | *O. rufipogon* | 0.96 |
| IRGC80543 | *O. rufipogon* | 0.97 |
| IRGC80605 | *O. rufipogon* | 0.95 |
| IRGC105400 | *O. rufipogon* | 0.92 |
| IRGC105402 | *O. rufipogon* | 0.92 |
| IRGC105567 | *O. rufipogon* | 0.92 |
| IRGC105709 | *O. rufipogon* | 0.82 |
| IRGC105711 | *O. rufipogon* | 0.96 |
| IRGC105861 | *O. rufipogon* | 0.96 |
| IRGC105868 | *O. rufipogon* | 0.94 |
| IRGC105883 | *O. rufipogon* | 0.94 |
| IRGC105884 | *O. rufipogon* | 0.92 |
| IRGC105887 | *O. rufipogon* | 0.94 |
| IRGC105908 | *O. rufipogon* | 0.92 |
| IRGC106036 | *O. rufipogon* | 0.94 |
| IRGC106039 | *O. rufipogon* | 0.98 |
| IRGC106081 | *O. rufipogon* | 0.92 |
| IRGC106149 | *O. rufipogon* | 0.90 |
| IRGC106166 | *O. rufipogon* | 0.86 |
| IRGC106274 | *O. rufipogon* | 0.91 |
| IRGC106276 | *O. rufipogon* | 0.90 |
| IRGC106279 | *O. rufipogon* | 0.92 |
| IRGC113651 | *O. rufipogon* | 0.93 |
| IRGC100117 | *O. barthii* | 0.86 |
| IRGC100119 | *O. barthii* | 0.93 |
| IRGC104103 | *O. barthii* | 0.88 |
| IRGC104983 | *O. barthii* | 0.98 |
| IRGC106239 | *O. barthii* | 0.98 |
| IRGC82034 | *O. glumaepatula* | 0.90 |
| IRGC101960 | *O. glumaepatula* | 0.95 |
| IRGC103812 | *O. glumaepatula* | 0.89 |
| IRGC105465 | *O. glumaepatula* | 0.88 |
| IRGC105561 | *O. glumaepatula* | 0.89 |
| IRGC106232 | *O. glumaepatula* | 0.98 |
| IRGC10545 | *O. glaberrima* | 0.91 |
| **IRGC86741** | ***O. glaberrima*** | **0.67** |
| IRGC96717 | *O. glaberrima* | 0.91 |
| IRGC96718 | *O. glaberrima* | 0.92 |
| IRGC96790 | *O. glaberrima* | 0.91 |
| IRGC96793 | *O. glaberrima* | 0.92 |
| IRGC96864 | *O. glaberrima* | 0.90 |
| IRGC96868 | *O. glaberrima* | 0.92 |
| IRGC102556 | *O. glaberrima* | 0.91 |
| IRGC102577 | *O. glaberrima* | 0.90 |
| IRGC103477 | *O. glaberrima* | 0.92 |
| IRGC104589 | *O. glaberrima* | 0.89 |
| IRGC112576 | *O. glaberrima* | 0.99 |
| RAM118 | *O. glaberrima* | 0.91 |
| RAM121 | *O. glaberrima* | 0.91 |
| RAM131 | *O. glaberrima* | 0.92 |
| RAM24 | *O. glaberrima* | 0.91 |
| RAM3 | *O. glaberrima* | 0.92 |
| RAM86 | *O. glaberrima* | 0.92 |
| TOG5890 | *O. glaberrima* | 0.92 |
| TOG6472 | *O. glaberrima* | 0.92 |
| TOG6508 | *O. glaberrima* | 0.92 |
| TOG7235 | *O. glaberrima* | 0.92 |
| **TOG7442** | ***O. glaberrima*** | **0.59** |
| IRGC92664 | *O. longistaminata* | 0.90 |
| IRGC93175 | *O. longistaminata* | 0.89 |
| IRGC99557 | *O. longistaminata* | 0.89 |
| IRGC110404 | *O. longistaminata* | 0.86 |
| IRGC93260 | *O. meridionalis* | 0.79 |
| IRGC93262 | *O. meridionalis* | 0.82 |
| IRGC93264 | *O. meridionalis* | 0.85 |
| IRGC105301 | *O. meridionalis* | 0.86 |
| IRGC105302 | *O. meridionalis* | 0.88 |
| **IRGC105305** | ***O. meridionalis*** | **0.54** |
| IRGC105306 | *O. meridionalis* | 0.86 |

Table S3. SNP allele frequency in each varietal group of rice (*O.sativa*) and wild relatives of rice.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chrom.1)** | **Marker** | **Allele** | ***O.sativa*2)** | | | | | |  | **Wild relatives AA genome species of genus *Oryza*3)** | | | | | | | | **PIC** |
| **TEJ** | **TRJ** | **ARO** | **AUS** | **IND** | **ADM** |  | **NIV** | **RUF** | **BAR** | **GLU** | **GLA** | **LON** | **MER** | **Avr** |
| 1 | id1002158 | C | 0.82 | 0.23 | 1.00 | 0.96 | 0.64 | 0.63 |  | 0.75 | 0.89 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |  |  |
|  | id1002158 | T | 0.18 | 0.77 | 0.00 | 0.04 | 0.36 | 0.37 |  | 0.25 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. 4) |  |  |  |  |  |  |  | 0.50 | 0.78 | 1.00 | 0.17 | 0.92 | 0.00 | 0.86 | 0.69 | 0.13 |
|  | id1004874 | A | 1.00 | 0.44 | 1.00 | 0.78 | 0.78 | 0.69 |  | 0.96 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id1004874 | C | 0.00 | 0.56 | 0.00 | 0.22 | 0.22 | 0.31 |  | 0.04 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.06 |
|  | id1007050 | G | 0.08 | 0.82 | 1.00 | 1.00 | 0.97 | 0.75 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |  |  |
|  | id1007050 | T | 0.92 | 0.18 | 0.00 | 0.00 | 0.03 | 0.25 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.92 | 1.00 | 1.00 | 1.00 | 0.92 | 0.00 | 0.00 | 0.84 | 0.00 |
|  | id1009283 | C | 0.86 | 0.73 | 0.15 | 1.00 | 0.95 | 0.79 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id1009283 | T | 0.14 | 0.27 | 0.85 | 0.00 | 0.05 | 0.21 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.97 | 0.00 |
|  | id1027818 | C | 0.12 | 0.68 | 0.92 | 0.95 | 1.00 | 0.60 |  | 0.96 | 0.98 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id1027818 | T | 0.88 | 0.32 | 0.08 | 0.05 | 0.00 | 0.40 |  | 0.04 | 0.02 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.05 |
| 2 | id2000835 | G | 0.00 | 0.08 | 0.00 | 0.66 | 0.69 | 0.16 |  | 0.96 | 0.89 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |  |  |
|  | id2000835 | T | 1.00 | 0.92 | 1.00 | 0.34 | 0.31 | 0.84 |  | 0.04 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.83 | 0.40 | 0.33 | 0.08 | 0.00 | 0.00 | 0.53 | 0.11 |
|  | id2004058 | A | 0.46 | 0.22 | 0.93 | 1.00 | 1.00 | 0.58 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id2004058 | T | 0.54 | 0.78 | 0.07 | 0.00 | 0.00 | 0.42 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.96 | 0.00 |
|  | id2004455 | A | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 |  | 0.00 | 0.05 | 0.00 | 0.00 | 0.06 | 1.00 | 1.00 |  |  |
|  | id2004455 | G | 0.36 | 1.00 | 1.00 | 1.00 | 1.00 | 0.84 |  | 1.00 | 0.95 | 1.00 | 1.00 | 0.94 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.97 | 0.21 |
|  | id2007797 | A | 1.00 | 0.98 | 1.00 | 0.87 | 0.29 | 0.88 |  | 0.15 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id2007797 | G | 0.00 | 0.02 | 0.00 | 0.13 | 0.71 | 0.12 |  | 0.85 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.14 |
|  | id2007818 | C | 1.00 | 1.00 | 1.00 | 0.84 | 0.30 | 0.89 |  | 0.15 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id2007818 | G | 0.00 | 0.00 | 0.00 | 0.16 | 0.70 | 0.11 |  | 0.85 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.10 |
|  | id2009547 | C | 0.98 | 0.39 | 1.00 | 0.98 | 0.97 | 0.74 |  | 0.96 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id2009547 | G | 0.02 | 0.61 | 0.00 | 0.02 | 0.03 | 0.26 |  | 0.04 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 1.00 | 0.86 | 0.98 | 0.08 |
|  | id2010498 | A | 0.70 | 0.68 | 1.00 | 1.00 | 0.98 | 0.83 |  | 0.96 | 0.98 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id2010498 | T | 0.30 | 0.32 | 0.00 | 0.00 | 0.02 | 0.17 |  | 0.04 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.03 |
|  | id2010605 | A | 0.41 | 0.05 | 0.15 | 0.48 | 0.26 | 0.26 |  | 0.52 | 0.60 | 0.25 | 0.67 | 0.00 | 0.00 | 0.86 |  |  |
|  | id2010605 | G | 0.59 | 0.95 | 0.85 | 0.52 | 0.74 | 0.74 |  | 0.48 | 0.40 | 0.75 | 0.33 | 1.00 | 1.00 | 0.14 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.87 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.36 |
|  | id2012558 | A | 0.03 | 0.81 | 0.00 | 0.00 | 0.16 | 0.30 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id2012558 | G | 0.97 | 0.19 | 1.00 | 1.00 | 0.84 | 0.70 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.98 | 0.00 |
|  | id2016584 | C | 0.00 | 0.01 | 0.00 | 0.20 | 0.49 | 0.08 |  | 0.22 | 0.34 | 0.00 | 0.25 | 0.50 | 0.00 | 0.00 |  |  |
|  | id2016584 | T | 1.00 | 0.99 | 1.00 | 0.80 | 0.51 | 0.92 |  | 0.78 | 0.66 | 1.00 | 0.75 | 0.50 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 0.96 | 0.40 | 0.33 | 0.04 | 0.75 | 0.71 | 0.62 | 0.29 |
| 3 | id3006808 | C | 0.00 | 0.00 | 0.00 | 0.11 | 0.76 | 0.10 |  | 0.08 | 0.15 | 0.20 | 0.33 | 0.00 | 0.00 | 0.00 |  |  |
|  | id3006808 | T | 1.00 | 1.00 | 1.00 | 0.89 | 0.24 | 0.90 |  | 0.92 | 0.85 | 0.80 | 0.67 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.15 |
|  | id3008459 | G | 0.41 | 0.99 | 1.00 | 1.00 | 0.99 | 0.69 |  | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id3008459 | T | 0.59 | 0.01 | 0.00 | 0.00 | 0.01 | 0.31 |  | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.83 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.14 | 0.89 | 0.02 |
|  | id3009973 | A | 0.00 | 0.03 | 0.00 | 0.02 | 0.74 | 0.17 |  | 0.06 | 0.33 | 0.00 | 0.08 | 0.04 | 0.00 | 0.00 |  |  |
|  | id3009973 | G | 1.00 | 0.97 | 1.00 | 0.98 | 0.26 | 0.83 |  | 0.94 | 0.67 | 1.00 | 0.92 | 0.96 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.18 |
|  | id3015719 | G | 0.42 | 0.84 | 1.00 | 1.00 | 0.99 | 0.56 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id3015719 | T | 0.58 | 0.16 | 0.00 | 0.00 | 0.01 | 0.44 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 0.83 | 0.92 | 1.00 | 0.86 | 0.96 | 0.00 |
|  | id3016444 | A | 0.00 | 0.00 | 0.07 | 1.00 | 0.26 | 0.03 |  | 0.73 | 0.55 | 1.00 | 0.17 | 1.00 | 0.00 | 0.00 |  |  |
|  | id3016444 | G | 1.00 | 1.00 | 0.93 | 0.00 | 0.74 | 0.97 |  | 0.27 | 0.45 | 0.00 | 0.83 | 0.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.91 | 1.00 | 1.00 | 0.96 | 1.00 | 0.86 | 0.96 | 0.35 |
| 4 | id4001882 | A | 0.93 | 0.13 | 1.00 | 0.96 | 0.76 | 0.55 |  | 0.73 | 0.43 | 1.00 | 0.75 | 1.00 | 1.00 | 1.00 |  |  |
|  | id4001882 | C | 0.07 | 0.87 | 0.00 | 0.04 | 0.24 | 0.45 |  | 0.27 | 0.57 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.96 | 0.29 |
|  | id4002852 | C | 0.00 | 0.01 | 0.54 | 0.42 | 0.49 | 0.11 |  | 0.06 | 0.22 | 0.00 | 0.50 | 0.00 | 0.00 | 0.00 |  |  |
|  | id4002852 | G | 1.00 | 0.99 | 0.46 | 0.58 | 0.51 | 0.89 |  | 0.94 | 0.78 | 1.00 | 0.50 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 0.33 | 1.00 | 1.00 | 1.00 | 0.96 | 0.14 |
|  | id4003888 | C | 1.00 | 1.00 | 1.00 | 1.00 | 0.78 | 0.98 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |  |  |
|  | id4003888 | G | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.02 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 0.96 | 0.40 | 0.33 | 0.08 | 0.00 | 0.86 | 0.61 | 0.00 |
|  | id4006172 | C | 0.36 | 0.66 | 0.71 | 0.91 | 0.99 | 0.73 |  | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id4006172 | T | 0.64 | 0.34 | 0.29 | 0.09 | 0.01 | 0.27 |  | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.43 | 0.96 | 0.05 |
|  | id4007444 | A | 0.00 | 0.00 | 0.07 | 0.89 | 0.30 | 0.15 |  | 0.77 | 0.78 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 |  |  |
|  | id4007444 | G | 1.00 | 1.00 | 0.93 | 0.11 | 0.70 | 0.85 |  | 0.23 | 0.22 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.19 |
|  | id4007764 | C | 1.00 | 0.99 | 1.00 | 0.85 | 0.62 | 0.91 |  | 0.47 | 0.63 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 |  |  |
|  | id4007764 | T | 0.00 | 0.01 | 0.00 | 0.15 | 0.38 | 0.09 |  | 0.53 | 0.38 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.63 | 0.87 | 1.00 | 0.33 | 0.96 | 0.75 | 0.57 | 0.77 | 0.29 |
|  | id4009094 | A | 0.80 | 1.00 | 0.14 | 0.77 | 0.80 | 0.88 |  | 1.00 | 0.98 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id4009094 | G | 0.20 | 0.00 | 0.86 | 0.23 | 0.20 | 0.12 |  | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.01 |
|  | id4010924 | A | 1.00 | 1.00 | 1.00 | 0.84 | 0.55 | 0.90 |  | 1.00 | 0.93 | 0.80 | 0.83 | 1.00 | 1.00 | 1.00 |  |  |
|  | id4010924 | G | 0.00 | 0.00 | 0.00 | 0.16 | 0.45 | 0.10 |  | 0.00 | 0.07 | 0.20 | 0.17 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 | 0.07 |
| 5 | id5000333 | C | 0.02 | 0.52 | 0.00 | 0.00 | 0.00 | 0.22 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id5000333 | G | 0.98 | 0.48 | 1.00 | 1.00 | 1.00 | 0.78 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 1.00 | 0.33 | 0.96 | 1.00 | 1.00 | 0.94 | 0.00 |
|  | id5001534 | C | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 | 0.18 |  | 0.06 | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id5001534 | T | 1.00 | 1.00 | 1.00 | 1.00 | 0.39 | 0.82 |  | 0.94 | 0.72 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.97 | 0.15 |
|  | id5003785 | C | 0.56 | 0.87 | 0.00 | 0.16 | 0.10 | 0.75 |  | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id5003785 | T | 0.44 | 0.13 | 1.00 | 0.84 | 0.90 | 0.25 |  | 1.00 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 | 0.98 | 0.04 |
|  | id5005055 | C | 1.00 | 1.00 | 1.00 | 0.30 | 0.87 | 0.88 |  | 0.19 | 0.57 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 |  |  |
|  | id5005055 | G | 0.00 | 0.00 | 0.00 | 0.70 | 0.13 | 0.12 |  | 0.81 | 0.43 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 0.43 | 0.94 | 0.26 |
|  | id5006236 | A | 0.07 | 0.23 | 1.00 | 0.00 | 0.08 | 0.15 |  | 0.00 | 0.09 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 |  |  |
|  | id5006236 | G | 0.93 | 0.77 | 0.00 | 1.00 | 0.92 | 0.85 |  | 1.00 | 0.91 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.97 | 0.05 |
|  | id5014934 | C | 0.01 | 0.01 | 0.00 | 0.00 | 0.58 | 0.12 |  | 0.08 | 0.23 | 0.00 | 0.00 | 0.50 | 0.00 | 0.00 |  |  |
|  | id5014934 | G | 0.99 | 0.99 | 1.00 | 1.00 | 0.42 | 0.88 |  | 0.92 | 0.77 | 1.00 | 1.00 | 0.50 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 0.60 | 1.00 | 0.04 | 1.00 | 0.86 | 0.71 | 0.18 |
| 6 | id6001137 | C | 0.00 | 0.36 | 0.00 | 0.02 | 0.11 | 0.06 |  | 0.60 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id6001137 | T | 1.00 | 0.64 | 1.00 | 0.98 | 0.89 | 0.94 |  | 0.40 | 0.77 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 | 0.28 |
|  | id6003050 | C | 1.00 | 1.00 | 1.00 | 0.02 | 0.77 | 0.92 |  | 0.07 | 0.17 | 0.00 | 0.17 | 0.08 | 0.00 | 0.00 |  |  |
|  | id6003050 | G | 0.00 | 0.00 | 0.00 | 0.98 | 0.23 | 0.08 |  | 0.93 | 0.83 | 1.00 | 0.83 | 0.92 | 0.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.92 | 0.91 | 0.80 | 1.00 | 0.25 | 0.00 | 0.43 | 0.67 | 0.17 |
|  | id6004481 | C | 0.99 | 0.33 | 1.00 | 0.91 | 0.67 | 0.76 |  | 0.96 | 0.76 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 |  |  |
|  | id6004481 | T | 0.01 | 0.67 | 0.00 | 0.09 | 0.33 | 0.24 |  | 0.04 | 0.24 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.96 | 0.13 |
|  | id6009055 | C | 1.00 | 0.74 | 1.00 | 0.91 | 0.69 | 0.80 |  | 0.89 | 0.56 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id6009055 | T | 0.00 | 0.26 | 0.00 | 0.09 | 0.31 | 0.20 |  | 0.11 | 0.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.79 | 0.70 | 1.00 | 0.83 | 0.92 | 1.00 | 0.14 | 0.77 | 0.19 |
|  | id6014475 | C | 1.00 | 0.99 | 1.00 | 0.78 | 0.32 | 0.98 |  | 0.87 | 0.69 | 0.70 | 0.67 | 1.00 | 1.00 | 1.00 |  |  |
|  | id6014475 | G | 0.00 | 0.01 | 0.00 | 0.22 | 0.68 | 0.02 |  | 0.13 | 0.31 | 0.30 | 0.33 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 0.78 | 1.00 | 1.00 | 1.00 | 1.00 | 0.43 | 0.89 | 0.21 |
|  | id6015793 | A | 0.00 | 0.00 | 0.00 | 0.71 | 0.05 | 0.11 |  | 0.91 | 0.80 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 |  |  |
|  | id6015793 | C | 1.00 | 1.00 | 1.00 | 0.29 | 0.95 | 0.89 |  | 0.09 | 0.20 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.43 | 0.95 | 0.13 |
|  | id6016490 | A | 0.00 | 0.02 | 0.93 | 0.44 | 0.39 | 0.21 |  | 0.19 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id6016490 | C | 1.00 | 0.98 | 0.07 | 0.56 | 0.61 | 0.79 |  | 0.81 | 0.70 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.96 | 0.19 |
| 7 | id7000337 | A | 0.00 | 0.00 | 0.00 | 0.05 | 0.87 | 0.11 |  | 0.09 | 0.19 | 0.00 | 0.33 | 0.50 | 0.00 | 0.00 |  |  |
|  | id7000337 | G | 1.00 | 1.00 | 1.00 | 0.95 | 0.13 | 0.89 |  | 0.91 | 0.81 | 1.00 | 0.67 | 0.50 | 0.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 0.91 | 0.40 | 1.00 | 0.04 | 0.00 | 1.00 | 0.65 | 0.21 |
|  | id7003112 | A | 0.66 | 0.00 | 0.00 | 0.00 | 0.01 | 0.32 |  | 0.04 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id7003112 | C | 0.34 | 1.00 | 1.00 | 1.00 | 0.99 | 0.68 |  | 0.96 | 0.76 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.97 | 0.12 |
|  | id7003442 | A | 0.82 | 0.48 | 1.00 | 1.00 | 1.00 | 0.70 |  | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id7003442 | G | 0.18 | 0.52 | 0.00 | 0.00 | 0.00 | 0.30 |  | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.02 |
|  | id7004429 | A | 1.00 | 1.00 | 0.43 | 0.88 | 0.48 | 0.80 |  | 0.17 | 0.20 | 0.30 | 0.17 | 0.00 | 0.00 | 0.00 |  |  |
|  | id7004429 | C | 0.00 | 0.00 | 0.57 | 0.12 | 0.52 | 0.20 |  | 0.83 | 0.80 | 0.70 | 0.83 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 | 0.97 | 0.19 |
|  | id7004719 | A | 0.32 | 0.36 | 0.43 | 0.02 | 0.03 | 0.21 |  | 0.09 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id7004719 | C | 0.68 | 0.64 | 0.57 | 0.98 | 0.97 | 0.79 |  | 0.91 | 0.89 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 | 0.98 | 0.09 |
|  | id7005655 | C | 1.00 | 0.85 | 1.00 | 0.07 | 0.99 | 0.87 |  | 0.65 | 0.78 | 0.30 | 0.17 | 0.00 | 0.00 | 0.00 |  |  |
|  | id7005655 | T | 0.00 | 0.15 | 0.00 | 0.93 | 0.01 | 0.13 |  | 0.35 | 0.23 | 0.70 | 0.83 | 1.00 | 0.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.71 | 0.87 | 1.00 | 1.00 | 0.96 | 0.00 | 0.86 | 0.83 | 0.36 |
| 8 | id8002554 | A | 0.00 | 0.04 | 0.00 | 0.00 | 0.84 | 0.19 |  | 0.05 | 0.23 | 0.00 | 0.50 | 0.50 | 0.00 | 0.00 |  |  |
|  | id8002554 | G | 1.00 | 0.96 | 1.00 | 1.00 | 0.16 | 0.81 |  | 0.95 | 0.77 | 1.00 | 0.50 | 0.50 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.88 | 0.96 | 0.40 | 0.33 | 0.04 | 1.00 | 1.00 | 0.63 | 0.20 |
|  | id8002972 | G | 0.78 | 0.34 | 1.00 | 0.98 | 0.63 | 0.58 |  | 0.92 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id8002972 | T | 0.22 | 0.66 | 0.00 | 0.02 | 0.37 | 0.42 |  | 0.08 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.97 | 0.06 |
|  | id8005361 | A | 0.31 | 0.99 | 1.00 | 1.00 | 0.75 | 0.57 |  | 0.80 | 0.41 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 |  |  |
|  | id8005361 | G | 0.69 | 0.01 | 0.00 | 0.00 | 0.25 | 0.43 |  | 0.20 | 0.59 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.98 | 0.27 |
|  | id8005525 | A | 0.00 | 0.27 | 0.00 | 0.12 | 0.65 | 0.36 |  | 0.15 | 0.24 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 |  |  |
|  | id8005525 | G | 1.00 | 0.73 | 1.00 | 0.88 | 0.35 | 0.64 |  | 0.85 | 0.76 | 1.00 | 0.92 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.97 | 0.17 |
|  | id8006950 | A | 1.00 | 0.99 | 1.00 | 0.11 | 0.81 | 0.89 |  | 0.35 | 0.83 | 0.70 | 0.67 | 1.00 | 1.00 | 1.00 |  |  |
|  | id8006950 | C | 0.00 | 0.01 | 0.00 | 0.89 | 0.19 | 0.11 |  | 0.65 | 0.17 | 0.30 | 0.33 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 0.91 | 1.00 | 1.00 | 0.92 | 1.00 | 0.71 | 0.92 | 0.31 |
| 9 | id9004100 | C | 1.00 | 1.00 | 1.00 | 1.00 | 0.63 | 0.97 |  | 1.00 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id9004100 | T | 0.00 | 0.00 | 0.00 | 0.00 | 0.37 | 0.03 |  | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.97 | 0.04 |
|  | id9004741 | C | 1.00 | 1.00 | 0.33 | 1.00 | 0.85 | 0.98 |  | 0.90 | 0.80 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 |  |  |
|  | id9004741 | T | 0.00 | 0.00 | 0.67 | 0.00 | 0.15 | 0.02 |  | 0.10 | 0.20 | 0.00 | 0.20 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.96 | 0.80 | 0.83 | 0.92 | 0.25 | 0.14 | 0.85 | 0.16 |
|  | id9007259 | C | 1.00 | 1.00 | 1.00 | 1.00 | 0.35 | 0.98 |  | 0.94 | 0.86 | 1.00 | 0.83 | 1.00 | 1.00 | 1.00 |  |  |
|  | id9007259 | G | 0.00 | 0.00 | 0.00 | 0.00 | 0.65 | 0.02 |  | 0.06 | 0.14 | 0.00 | 0.17 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 0.91 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.95 | 0.11 |
| 10 | id10004689 | A | 0.04 | 0.57 | 1.00 | 1.00 | 0.98 | 0.60 |  | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id10004689 | T | 0.96 | 0.43 | 0.00 | 0.00 | 0.02 | 0.40 |  | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.97 | 0.02 |
|  | id10005255 | C | 0.65 | 0.26 | 0.64 | 1.00 | 0.95 | 0.64 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 |  |  |
|  | id10005255 | T | 0.35 | 0.74 | 0.36 | 0.00 | 0.05 | 0.36 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 | 0.97 | 0.01 |
|  | id10006963 | A | 0.00 | 0.00 | 0.00 | 0.05 | 0.48 | 0.03 |  | 0.41 | 0.50 | 1.00 | 0.67 | 1.00 | 1.00 | 0.00 |  |  |
|  | id10006963 | G | 1.00 | 1.00 | 1.00 | 0.95 | 0.52 | 0.97 |  | 0.59 | 0.50 | 0.00 | 0.33 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.91 | 0.34 |
| 11 | id11000858 | A | 1.00 | 1.00 | 1.00 | 0.91 | 0.58 | 0.90 |  | 0.87 | 0.84 | 0.70 | 0.80 | 1.00 | 1.00 | 1.00 |  |  |
|  | id11000858 | G | 0.00 | 0.00 | 0.00 | 0.09 | 0.42 | 0.10 |  | 0.13 | 0.16 | 0.30 | 0.20 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.79 | 0.83 | 1.00 | 0.83 | 0.92 | 0.25 | 0.14 | 0.77 | 0.18 |
|  | id11001559 | A | 0.07 | 0.53 | 0.00 | 0.00 | 0.00 | 0.31 |  | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id11001559 | G | 0.93 | 0.47 | 1.00 | 1.00 | 1.00 | 0.69 |  | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.02 |
|  | id11005021 | G | 0.42 | 0.97 | 1.00 | 1.00 | 1.00 | 0.85 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |  |  |
|  | id11005021 | T | 0.58 | 0.03 | 0.00 | 0.00 | 0.00 | 0.15 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.92 | 0.00 |
|  | id11007840 | C | 1.00 | 1.00 | 1.00 | 0.96 | 0.54 | 0.95 |  | 0.76 | 0.55 | 0.00 | 0.75 | 0.50 | 1.00 | 0.00 |  |  |
|  | id11007840 | T | 0.00 | 0.00 | 0.00 | 0.04 | 0.46 | 0.05 |  | 0.24 | 0.45 | 0.00 | 0.25 | 0.50 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.88 | 0.83 | 0.00 | 0.67 | 0.04 | 1.00 | 0.00 | 0.53 | 0.33 |
|  | id11010097 | G | 0.25 | 0.24 | 0.00 | 0.26 | 0.20 | 0.15 |  | 0.09 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id11010097 | T | 0.75 | 0.76 | 1.00 | 0.74 | 0.80 | 0.85 |  | 0.91 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 0.91 | 1.00 | 0.33 | 1.00 | 1.00 | 0.71 | 0.90 | 0.09 |
|  | id11010335 | A | 0.78 | 0.51 | 0.92 | 0.48 | 0.35 | 0.74 |  | 0.39 | 0.70 | 0.30 | 0.17 | 0.00 | 0.00 | 0.00 |  |  |
|  | id11010335 | G | 0.22 | 0.49 | 0.08 | 0.52 | 0.65 | 0.26 |  | 0.61 | 0.30 | 0.70 | 0.83 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.86 | 0.96 | 0.33 |
|  | id11011159 | C | 0.81 | 0.45 | 1.00 | 0.91 | 0.93 | 0.69 |  | 0.79 | 0.85 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id11011159 | T | 0.19 | 0.55 | 0.00 | 0.09 | 0.07 | 0.31 |  | 0.21 | 0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.88 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 | 0.86 | 0.94 | 0.15 |
| 12 | id12000266 | C | 0.01 | 0.07 | 0.00 | 0.34 | 0.57 | 0.08 |  | 0.22 | 0.26 | 0.00 | 0.33 | 0.00 | 0.00 | 0.00 |  |  |
|  | id12000266 | T | 0.99 | 0.93 | 1.00 | 0.66 | 0.43 | 0.92 |  | 0.78 | 0.74 | 1.00 | 0.67 | 1.00 | 1.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 0.92 | 0.75 | 0.00 | 0.88 | 0.23 |
|  | id12000592 | C | 0.00 | 0.00 | 0.00 | 0.91 | 0.03 | 0.15 |  | 0.13 | 0.13 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  | id12000592 | T | 1.00 | 1.00 | 1.00 | 0.09 | 0.97 | 0.85 |  | 0.87 | 0.87 | 0.70 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.96 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 0.43 | 0.92 | 0.15 |
|  | id12001422 | C | 0.28 | 0.94 | 1.00 | 1.00 | 1.00 | 0.74 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id12001422 | T | 0.72 | 0.06 | 0.00 | 0.00 | 0.00 | 0.26 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
|  | id12004456 | C | 1.00 | 0.81 | 1.00 | 1.00 | 1.00 | 0.93 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |
|  | id12004456 | T | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 | 0.07 |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 0.92 | 0.91 | 1.00 | 1.00 | 0.96 | 1.00 | 0.86 | 0.94 | 0.00 |
|  | id12007081 | A | 0.69 | 0.99 | 1.00 | 1.00 | 0.42 | 0.76 |  | 0.94 | 0.91 | 1.00 | 0.67 | 1.00 | 1.00 | 1.00 |  |  |
|  | id12007081 | C | 0.31 | 0.01 | 0.00 | 0.00 | 0.58 | 0.24 |  | 0.06 | 0.09 | 0.00 | 0.33 | 0.00 | 0.00 | 0.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.99 | 0.11 |
|  | id12008285 | A | 1.00 | 0.99 | 1.00 | 1.00 | 0.65 | 0.95 |  | 0.44 | 0.63 | 0.30 | 0.17 | 0.00 | 0.00 | 0.00 |  |  |
|  | id12008285 | C | 0.00 | 0.01 | 0.00 | 0.00 | 0.35 | 0.05 |  | 0.56 | 0.37 | 0.70 | 0.83 | 1.00 | 1.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 1.00 | 1.00 | 0.98 | 0.33 |
|  | id12009153 | A | 0.15 | 0.02 | 0.08 | 0.71 | 0.03 | 0.10 |  | 0.79 | 0.78 | 0.70 | 0.67 | 1.00 | 1.00 | 0.00 |  |  |
|  | id12009153 | G | 0.85 | 0.98 | 0.92 | 0.29 | 0.97 | 0.90 |  | 0.21 | 0.22 | 0.30 | 0.33 | 0.00 | 0.00 | 1.00 |  |  |
|  |  | Amp. Freq. |  |  |  |  |  |  |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.75 | 1.00 | 0.99 | 0.28 |

\* numbers in red font below 0.50.

1) chromosome

2) TEJ: temperate *japonica*; TRJ: tropical *japonica*; ARO: aromatic; IND: *indica*; ADM: admixture

3) NIV: *O. nivara*; RUF: *O. rufipogon*; BAR: *O. barthii*; GLU: *O. glumaepatula*; GLA: *O. glaberrima*; LON: *O. longistaminata*; MER: *O. meridionalis*; Avr: average

4) Amp. Freq.: Amplification frequency