Table S1   14C ages from buried soils.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample description  Depth, cm | Dated material | Lab code | **Age** | | | | | **Source** |
| **14C yr BP** | **cal BP  (1σ, 68,2%)** | **cal BP  (2σ, 95,4 %)** | **Mean(μ)±**  **sigma(σ)**  **cal BP** | **(m)**  **cal BP** |
| **RANIS-1 55°43′30″N; 37°02′45″E** | | | | | | | | |
| S3b Soil surface\* | Charcoal | Hela-2536 | 4134 ± 34 | 4811–4580 | 4821–4537 | 4682 ± 81 | 4678 | Ershova et al. 2016 |
| S3b Soil surface\* | Charcoal | Hela-2538 | 4118 ± 35 | 4807–4569 | 4820–4526 | 4664 ± 88 | 4650 | Ershova et al. 2016 |
| S3b Soil surface\* | Charcoal | Ki-16755 | 3650 ± 35 | 4069–3905 | 4086–3879 | 3977 ± 60 | 3969 | Krenke et al. 2013 |
| S3b Soil surface\* | Charcoal | Ki-13227 | 3590 ± 70 | 4062–3732 | 4086–3701 | 3896 ± 103 | 3896 | Krenke et al. 2013 |
| S3b Soil surface\* | Charcoal | UGAMS-7956 | 4100 ± 25 | 4785–4530 | 4808–4523 | 4636 ± 90 | 4607 | Ershova et al. 2016 |
| S3b Soil surface\* | Charcoal | Hela-2537 | 4095 ± 34 | 4797–4526 | 4814–4447 | 4631 ± 95 | 4607 | Ershova et al. 2016 |
| S3b Soil surface\* | Charcoal | Ki-13226 | 3690 ± 100 | 4219–3886 | 4404–3726 | 4043 ± 145 | 4037 | Krenke et al. 2013 |
| S3b Soil surface\* | Charcoal | GIN-13776 | 3950 ± 250 | 4815–4089 | 5214–3698 | 4413 ± 345 | 4407 | Ershova et al. 2016 |
| S3b A  240–265 | Humus | GIN-13777 | 4400 ± 100 | 5270–4857 | 5315–4825 | 5047 ± 149 | 5028 | Ershova et al. 2016 |
| S4-6 A  290–310 | Humus | Кі -14017 | 7200 ± 110 | 8161–7940 | 8302–7794 | 8034 ± 115 | 8029 | Ershova et al. 2016 |
| S4-6 A  290–310 | Humus | GIN-13778 | 8180 ± 100 | 9274–9013 | 9445–8782 | 9152 ± 146 | 9152 | Ershova et al. 2016 |
| **RANIS-2 55°43′41″N; 37°02′42″E** | | | | | | | | |
| S2 A  125–145 | Humus | Ki-18744 | 1260 ± 80 | 1282–1086 | 1306–984 | 1173 ± 84 | 1184 | Alexandrovskiy et al. 2016 |
| S2 A  125–145 | Charcoal | UOC-3112 | 879 ± 24 | 892–739 | 905–730 | 798 ± 51 | 782 |  |
| S2 A  125–145 | Charcoal | UOC-3110 | 1048 ± 33 | 974–929 | 1053–920 | 964 ± 35 | 956 |  |
| S2 A  125–145 | Charcoal | UOC-3113 | 1300 ± 26 | 1282–1187 | 1290–1181 | 1238 ± 33 | 1245 |  |
| S3a A  210–230 | Humus | Ki-18751 | 2790 ± 180 | 3166–2747 | 3381- 2464 | 2944 ± 226 | 2941 | Alexandrovskiy et al. 2016 |
| S3a A  210–230 | Charcoal | UOC-3111 | 2549 ± 32 | 2748–2541 | 2751–2498 | 2650 ± 84 | 2695 |  |
| S3a A  210–230 | Charcoal | UOC-3108 | 361 ± 29 | 486–325 | 500–316 | 408 ± 56 | 421 |  |
| S4-6 A  350 | Humus | GIN-15105 | 5570 ± 50 | 6398–6310 | 6446–6286 | 6360 ± 43 | 6358 | Ershova et al. 2016 |
| S4-6 A  460–470 | Humus | Ki-18753 | 7810 ± 100 | 8750–8450 | 8977–8415 | 8650 ± 149 | 8622 | Alexandrovskiy et al. 2016 |
| S4-6 A  460–470 | Charcoal | UOC-3107 | 7848 ± 32 | 8684–8587 | 8746–8550 | 8633 ± 48 | 8623 |  |
| S4-6 A  460–470 | Charcoal | UOC-3109 | 8341 ± 34 | 9431–9307 | 9462–9281 | 9366 ± 52 | 9365 |  |
| **ZBS-4 55°42′16″N; 36°44′8″E** | | | | | | | | |
| S3b A  55–65 | Humus | Ki-17148 | 2690 ± 235 | 3138–2486 | 3396–2183 | 2812 ± 297 | 2813 | Alexandrovskiy et al. 2016 |
| S3b Soil surface\* | Charcoal | GIN-14855 | 3630 ± 70 | 4079–3848 | 4150–3725 | 3954 ± 101 | 3950 | Krenke et al. 2013 |
| S3b Soil surface\* | Charcoal | GIN-14854 | 3650 ± 70 | 4084–3887 | 4222–3730 | 3981 ± 100 | 3976 | Krenke et al. 2013 |
| S3b Soil surface\* | Charcoal | UGAMS-10130 | 4040 ± 25 | 4566–4441 | 4574–4428 | 4501 ± 56 | 4490 | Krenke et al. 2013 |
| S4-6 A  170–175 | Humus | Ki-18579 | 7340 ± 150 | 8313–8020 | 8424–7864 | 8162 ± 142 | 8161 | Alexandrovskiy et al. 2016 |
| **ZBS-5 55°42′11″N; 36°43′40″E** | | | | | | | | |
| S2 | Charcoal | UOC-3264 | 1503 ± 25 | 1405–1355 | 1517–1327 | 1388 ±39 | 1382 |  |
| S3b-6 A\* 170 | Charcoal | GIN-15408 | 4290 ± 80 | 5030–4709 | 5263–4575 | 4867 ± 138 | 4866 |  |
| S3b-6 A\* 167–170 | Charcoal | UOC-3728 | 4114 ± 38 | 4805–4536 | 4820–4523 | 4659 ± 91 | 4644 |  |
| S3b-6 A\* | Charcoal | UOC-3729 | 4067 ± 38 | 4783–4446 | 4806–4435 | 4578 ± 99 | 4558 |  |
| S3b-6\* 193 | Charcoal | UOC-3730 | 4132 ± 38 | 4811–4577 | 4822–4531 | 4678 ± 84 | 4675 |  |
| S3b-6 A | Humus | GIN-14969 | 6980 ± 50 | 7921–7750 | 7932–7696 | 7814 ± 63 | 7813 | Ershova et al. 2016 |
| S3b-6 A | Charcoal | UOC-3265 | 8230 ± 35 | 9264–9132 | 9394–9032 | 9197 ±70 | 9197 |  |
| **Aksinyino mire 55°43′46″N; 37°02′40″E** | | | | | | | | |
| 95–100 | Peat | GIN-15106 | 2020 ± 50 | 2040–1898 | 2116–1877 | 1982 ± 65 | 1976 | Ershova et al. 2016 |
| 140–145 | Peat | GIN-15107 | 2900 ± 40 | 3136–2963 | 3165–2925 | 3039 ± 64 | 3036 | Ershova et al. 2016 |
| 170–175 | Peat | GIN-15108 | 3150 ± 40 | 3444–3275 | 3454–3250 | 3368 ± 54 | 3375 | Ershova et al. 2016 |
| 190–200 | Peat | GIN-15109 | 4000 ± 40 | 4518–4423 | 4780–4305 | 4477 ± 55 | 4477 | Ershova et al. 2016 |
| **Rybushkino 55°42′36″N; 36°45′18″E** | | | | | | | | |
| S2-3a AE 82–85 | Humus | Ki-17140 | 1420 ± 70 | 1386–1284 | 1520–1184 | 1340 ± 66 | 1334 | Alexandrovskiy et al. 2016 |
| S3b-6 Ahh 120–130 | Relic humus | Ki-17147 | 6640 ± 330 | 7917–7180 | 8174–6799 | 7512 ± 332 | 7519 | Alexandrovskiy et al. 2016 |
| **1 Zvenigorod Neolithic settlement 55°43′54″N; 36°50′42″E** | | | | | | | | |
| S4 A\* | Hazelnut shells | UGAMS-7955 | 4960 ± 30 | 5723–5651 | 5742–5608 | 5685 ± 42 | 5684 | Ershova et al. 2016 |
| S4 A\* | Organic crust | UGAMS-7954 | 5370 ± 30 | 6271–6121 | 6278–6016 | 6171 ± 72 | 6189 | Ershova et al. 2016 |
| S4 A | Humus | Ki-16756 | 4750 ± 140 | 5611–5313 | 5863–5046 | 5454 ± 178 | 5469 | Ershova et al. 2016 |
| S4 A | Charcoal | Ki-16752 | 4920 ± 100 | 5860–5490 | 5908–5469 | 5676 ± 120 | 5671 | Ershova et al. 2016 |
| S4 A | Humus | Ki-16753 | 6030 ± 110 | 7144–6736 | 7231–6637 | 6899 ± 145 | 6891 | Ershova et al. 2016 |
| **Tushino 1 55°48′36″N; 37°25′48″E** | | | | | | | | |
| S2 | Charcoal | UOC-4977 | 1342 ± 32 | 1301–1263 | 1309–1183 | 1268 ± 33 | 1279 |  |
| S2 | Charcoal | UOC-4976 | 1322 ± 33 | 1294–1187 | 1300–1182 | 1250 ± 36 | 1263 |  |
| S2 A1  125 | Humus | IGAN-2321 | 1780 ± 80 | 1813–1616 | 1881–1536 | 1705 ± 95 | 1704 | Alexandrovskiy et al. 2016 |
| S3a A1  175 | Charcoal | Ki-10525 | 3750 ± 120 | 4293–3927 | 4508–3734 | 4128 ± 171 | 4124 | Alexandrovskiy et al. 2016 |
| S3a-5 A  176 | Humus | IGAN-2320 | 5460 ± 160 | 6407–6013 | 6628–5915 | 6239 ± 180 | 6241 | Alexandrovskiy et al. 2016 |
| S7 A  210 | Humus | IGAN-2319 | 11780 ± 290 | 13980-13310 | 14629–13062 | 13723 ± 384 | 13672 | Alexandrovskiy et al. 2016 |
| S7 A  210 | Humus | Ki-10562 | 11260 ± 300 | 13380-12819 | 13753–12647 | 13146 ± 289 | 13134 | Alexandrovskiy et al. 2016 |
| **Myakinino 55°49′30″N; 37°23′20″E** | | | | | | | | |
| S2 A 370 | Humus | Ki-10523 | 1280 ± 70 | 1292–1095 | 1313–1010 | 1194 ± 74 | 1206 | Alexandrovskiy et al. 2016 |
| S2 A  220–230 | Humus | Ki-10524 | 1240 ± 70 | 1263–1083 | 1294–989 | 1161 ± 79 | 1167 | Alexandrovskiy et al. 2016 |
| **Terekhovo 55°44′42″N; 37°28′10″E** | | | | | | | | |
| S2-3 AE 165 | Humus | IGAN-2549 | 2430 ± 180 | 2743–2332 | 2879–2009 | 2494 ± 216 | 2500 | Alexandrovskiy et al. 2016 |
| S5 АU 300 | Humus | IGAN-2088 | 6360 ± 100 | 7418–7179 | 7463–7013 | 7277 ± 110 | 7288 | Alexandrovskiy et al. 2016 |
| **Kremlin 55°45′20″N; 37°37′12″E** | | | | | | | | |
| S2 A Surface, 995 | Bark | Ki-14278 | 815 ± 25 | 736–693 | 781–685 | 723 ± 24 | 720 | Ershova et al. 2016 |
| S2 A  998–1005 | Humus | Ki-14277 | 1380 ± 40 | 1327–1280 | 1369–1187 | 1301 ± 31 | 1300 | Alexandrovskiy et al. 2016 |
| S2 A  1005–1009 | Humus | Кі-14279 | 1290 ± 50 | 1284–1182 | 1299–1081 | 1217 ± 55 | 1226 | Alexandrovskiy et al. 2016 |
| S2 A 220 | Humus | Ki-14274 | 1230 ± 40 | 1238–1080 | 1267–1064 | 1163 ± 61 | 1162 |  |
| S3a A  40–50 | Humus | Ki-14275 | 3120 ± 80 | 3443–3230 | 3556–3080 | 3320 ± 100 | 3324 |  |
| S6-7 A  160–165 | Humus | Ki-14276 | 10580 ± 80 | 12660–12428 | 12717–12237 | 12530 ± 113 | 12551 |  |
| **Kuryanovo 55°39′35″N; 37°40′30″E** | | | | | | | | |
| S2-3a Soil surface 135 | Charcoal | GIN-9886 | 900 ± 100 | 915–736 | 1046–666 | 827 ± 89 | 824 | Alexandrovskiy et al. 2016 |
| S2-3a A  140–145 | Humus | IGAN-2075 | 2000 ± 50 | 1999–1889 | 2110 -1830 | 1958 ± 61 | 1954 | Alexandrovskiy et al. 2016 |
| S2-3a A  150–155 | Humus | IGAN-2084 | 2500 ± 50 | 2723–2491 | 2743–2380 | 2581 ± 94 | 2582 | Alexandrovskiy et al. 2016 |
| S2-3a A  160–165 | Humus | IGAN-2083 | 2850 ± 70 | 3063–2872 | 3164–2793 | 2980 ± 6 | 2974 | Alexandrovskiy et al. 2016 |
| Under S2-3a, 210 | Charcoal | Ki-10522 | 5305 ± 90 | 6191–5953 | 6280–5920 | 6091 ± 103 | 6091 | Alexandrovskiy et al. 2016 |
| S5  280 | Humus | IGAN-2648 | 7010 ± 150 | 7960–7691 | 8159–7585 | 7846 ± 139 | 7841 | Alexandrovskiy et al. 2016 |
| **Brateevo-4 55° 38′30″N; 37°46′40″E** | | | | | | | | |
| S4-6 A | Humus | Ki-18580 | 5200 ± 80 | 6176–5894 | 6187–5749 | 5980 ± 116 | 5972 |  |
| S4-6 A | Humus | Ki-18578 | 6760 ± 150 | 7750–7481 | 7937–7418 | 7636 ± 134 | 7629 |  |
| S4-6 A | Humus | Ki-18571 | 7920 ± 140 | 8979–8605 | 9127–8424 | 8789 ± 183 | 8782 |  |
| **Brateevo-5 55°38′21″N; 37°46′57″E** | | | | | | | | |
| Deposits between S1 and S2,  75-84 | Charcoal | UOC-5066 | 318 ± 21 | 429–313 | 459–306 | 383 ± 42 | 387 |  |

\*Archaeological object.