**Tables**

**Table 1.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lab code | Dated material | Context | Raw 14C age | Error | Unmodelled age ca. BP (2σ) | | Modelled age cal. BP (2σ) | | Sediment  Profile |
| UBA-21736 | *H. melanostoma* | 11042 | 24633 | 184 | 29440 | 28490 | 31726 | 28569 | Platy Gravel |
| UBA-21738 | *H. melanostoma* | 11043 | 25187 | 185 | 30561 | 29584 | 30680 | 29587 | Red Silts |
| UBA-21737 | *H. melanostoma* | 11043 | 26043 | 189 | 30904 | 29700 | 30939 | 29734 | Red Silts |
| UBA-21740 | *H. melanostoma* | 11044 | 27392 | 224 | 31543 | 31035 | 31551 | 31030 | Platy Gravel |
| UBA-21739 | *H. melanostoma* | 11044 | 27608 | 257 | 31822 | 31070 | 31751 | 31073 | Platy Gravel |
| UBA-21741 | *H. melanostoma* | 11045 | 26321 | 193 | 31021 | 30302 | 31032 | 30301 | Red Silts |
| UBA-21742 | *H. melanostoma* | 11045 | 26433 | 192 | 31070 | 30363 | 31082 | 30361 | Red Silts |
|  | No date | 11046 |  |  |  |  | - | - | Platy Gravel |
| UBA-21745 | *H. melanostoma* | 11048 | 28022 | 231 | 32430 | 31265 | 32094 | 31231 | Gritty Silt |
| UBA-21747 | *H. melanostoma* | 11049 | 28301 | 234 | 32773 | 31429 | 32400 | 31305 | Red Silt |

**Table 2.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SPSS No. | Grass species | Common name | Mean length (SD) | Range (µm) | *n* |
| 0 | *Aegilops triuncialis*† | Barbed goatgrass | 11.7 (8.8) | 3.4-28.6 | 50 |
| 1 | *Aegilops geniculata*† | Ovate goatgrass | 16.7 (8.6) | 4.3-34.4 | 31 |
| 2 | *Aegilops speltoides* | Goatgrass | 16.9 (9.6) | 4.1-38 | 50 |
| 3 | *Aegilops tawschii* | Tausch’s goatgrass | 11.8 (7.9) | 3.1-33.2 | 50 |
| 20 | *Aegilops bicornis*† | Goatgrass | 9.9 (7.8) | 3.1-43.6 | 43 |
| 21 | *Aegilops biuncialis*† | Goatgrass | 18.7 (9.9) | 3.5-44.9 | 43 |
| 22 | *Aegilops Ktoschyi*† | Goatgrass | 7.6 (13.3) | 3.1-43.6 | 73 |
| 7 | *Avena barbata* | Oat (wi.) | 6.4 (2.1) | 2.9-13.3 | 49 |
| 8 | *Avena sterilis* | Oat (wi.) | 6.3 (1.8) | 3-9.2 | 38 |
| 9 | *Avena sativa* | Oat (dom.) | 7.6 (2) | 4.9-11.6 | 49 |
| 10 | *Echinochloa colona* |  | 9.2 (2.2) | 5-14.8 | 34 |
| 11 | *Echinochloa crus-galli* | Barnyard millet | 7.4 (1.4) | 5.3-9.4 | 27 |
| 12 | *Erogrostis tef* | Annual bunchgrass | 6.7 (1.6) | 4.3-11.6 | 43 |
| 6 | *Hordeum vulgare* | Six-row Barley (dom.) | 7.1 (5.1) | 2.9-32.4 | 50 |
| 13 | *Panicum repens* | Torpedograss | 11 (2.2) | 5.9-13.8 | 27 |
| 14 | *Poa annua* | Annual meadow grass | 3.3 (0.5) | 2.4-4.7 | 44 |
| 15 | *Polypogon monospeliensis* | Annual beardgrass | 3.9 (0.8) | 3.1-5.1 | 30 |
| 16 | *Setaria verticillata* | Hooked bristelgrass | 11 (1.7) | 8.1-14.3 | 30 |
| 17 | *Stipa lagascae* | Feather grass | 2.7 (0.6) | 1.5-3.9 | 47 |
| 4 | *Triticum turgidum* | Emmer (wi.) | 7.8 (8.7) | 2.1-39.4 | 59 |
| 5 | *Triticum spelta* | Spelt (dom.) | 11.4 (10.2) | 3-42.7 | 52 |
| 23 | *Triticum monoccocum* | Einkorn (wi.) | 5.6 (4.3) | 1.9-21 | 75 |
| 24 | *Triticum aestivo-compactum* | Wheat (dom.) | 14 (10.7) | 4.6-36.1 | 49 |

†Known or thought to occur in study region during late Pleistocene

**Table 3.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SPSS No. | Starch morphotype | Mean length (SD) | Range (µm) | *n* |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 18 | *Type 1* | 27.6 (4.9) | 23.1-36.5 | 10 |
| 19 | *Type 2* | 14.9 (3.1) | 11.8-19.3 | 5 |

**Table 4.**

|  |  |
| --- | --- |
| ***Species*** | **Preferred habitat types of *Aegilops*† & *Hordeum§* grasses** |
| *A. bicornis\** | Coastal regions, lowland areas, sandy loams and sand dunes. |
| *A. biuncialis\** | Limestone. Disturbed areas and forest. |
| *A. geniculata\** | Disturbed habitat, dry rock slopes of hills and mountains. Occurs on limestone. Can occur in massive stands. |
| *A. triuncialis\** | With *A. geniculata*, the most widespread variety of the genus. Predominantly occurs on limestone and basalt, desert margins, river terraces and seaside. Can be found in massive stands. |
| *A. kotschyi\** | Dry wadis and sand dunes. Prefers limestone and sandstone bedrock. Usually scattered, sometimes in large stands. |
| *A. peregrina* | Coastal areas, hill and mountain slopes. Occurs on limestone. Can occur in open pine and oak forests. |
| *A. ventricosa* | In grasslands, sandy wadis, disturbed habitat. Predominantly occurs on limestone. Uncommon. |
| *H. bulbosum* | Highly flexible ecological tolerances including wet meadows and dry hillsides. |
| *H. marinum* | Saline meadows or marshes along the coast or inland. Sometimes in river beds. |
| *H. murinum* | Seaside, sandy riverbeds. |
| *H. vulgare* subs. *spontaneum* | Grassland areas, meadows and semi-arid regions. Can occur on salty soil. |

\* Specimens analysed in reference collection (see Table 2).

†Data from Kilian et al. 2011.

§Data from von Bothmer et al. 1991.

**Table 5.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Location/species | Source of evidence | Type of evidence | Grass species identified | Dates | Source |
| **Neanderthals** |  |  |  |  |  |
| Spy I & II, Belgium | Dental calculus | starch | Andropogonaceae or Paniceae | ~36 ka | Henry *et al.* 2014 |
| Shanidar III, Iraq | Dental calculus | starch | *Hordeum* sp. | ~46 ka | Henry *et al*. 2014 |
| Kulna, Czech Republic | Dental calculus | starch | Triticeae | 50-40 ka | Henry *et al.* 2014 |
| ***Homo sapiens*** |  |  |  |  |  |
| Ohallo II, Israel | Hut sediments & groundstone | macroplant & starch | *Avena barbata*  *Avena sterilis*  *Hordeum spontaneum*  *Triticum dicoccoides*  *Aegilops geniculata/preregrina* | 23 ka | Piperno *et al*. 2004; Snir *et al.* 2015 |
| Shizitan 14, China | Sandstone grinding slab | starch & usewear | Triticeae & Paniceae | 23-19 ka | Liu *et al.* 2014 |
| Cuddie Springs, Australia | Sandstone grinding stones | starch & usewear | *Panicum* spp/*Eragrostis* spp./*Yakrina* spp. | 27 ka | Fullagar et al. 2008 |
| Bilancino, Italy | Sandstone grinder/pestle | starch & usewear | *Gramineae, Brachypodium* spp. | 28,298±301 cal BC | Biancamaria Aranguren *et al.* 2007; Revedin *et al.* 2010 |
| Lake Mungo, Australia | Sandstone grindstones | usewear | seed grinding | 25-14 ka BP | Fullagar et al. 2015 |
| Haua Fteah, Libya | Limestone cobble | starch & usewear | *Aegilops* spp. | 30-31 ka | This paper |
| Grottta Paglicci, Italy | Sandstone pestle | starch & usewear | *Avena barbata* | 32,614±429 cal BP | Marioti Lippi, M. *et al.* 2015 |
| Skhull II, V, VII, Israel | Dental calculus | starch | Triticeae | 130-100,000 BP | Henry *et al.* 2014 |
| Ngalue, Mozambique | Flaked and ground stone tools (quartz & rhyolite) | starch | *Sorghum* spp. | 105,000-42,000 BP | Mercader 2009; Mercader *et al.* 2009 |
| 8-B-11, Sai Island, Sudan | Flaked and ground sandstone slab | usewear | possible seed grinding | 220,000-150,000 BP | Van Peer 2003 |

**Table 6**.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Seed species | Aboriginal name | Product | Carbohydrate (g/100g) | Kilo Calorie (per/100g) |
| *Panicum astraliense & Fimbristylis oxystachya* | Yidagadji  Lugara | cooked | 28.43 | 158.7 |
| *Chenopodium rhadinostachyum* | Galbarri | cooked  raw seed | 66.42  21.44 | 373.86  161.69 |
| *Panicum australiense* | Yidayadji | cooked  raw seed | n.d.  37.3 | 365.01  241.76 |
| *Fimbristylis oxystachya* | Lugarra | cooked  raw seed | n.d.  25.77 | 380.99  244.70 |
| *Panicum cymbiforme* | Gumbulyu | cooked  raw seed | 40.78  32.15 | 404.57  196.01 |

Data from Cane (1987).