
Figures and figure supplements

Contesting the presence of wheat in the British Isles 8,000 years ago by assessing ancient DNA authenticity from low-coverage data

Clemens L Weiß, et al.

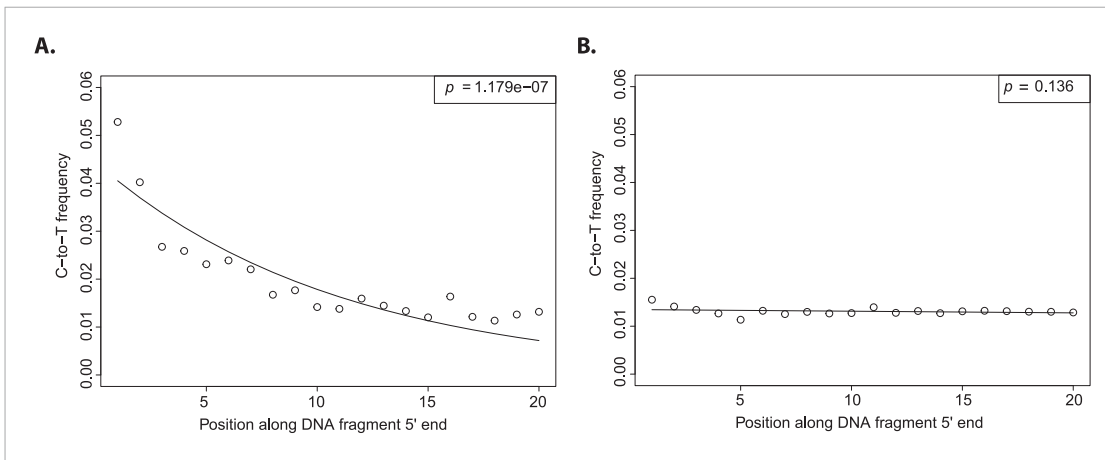


Figure 1. Patterns of cytosine to thymine (C-to-T) substitutions at the 5' end of known modern and ancient DNA. **(A)** C-to-T substitutions at the 5' end from a whole library of historic *Solanum tuberosum* (ancient DNA). The line shows the fit with the exponential distribution and the box the goodness-of-fit p-value. **(B)** C-to-T substitutions at the 5' end from a whole library of present-day *Triticum aestivum* (modern DNA). Line and box as in **(A)**.

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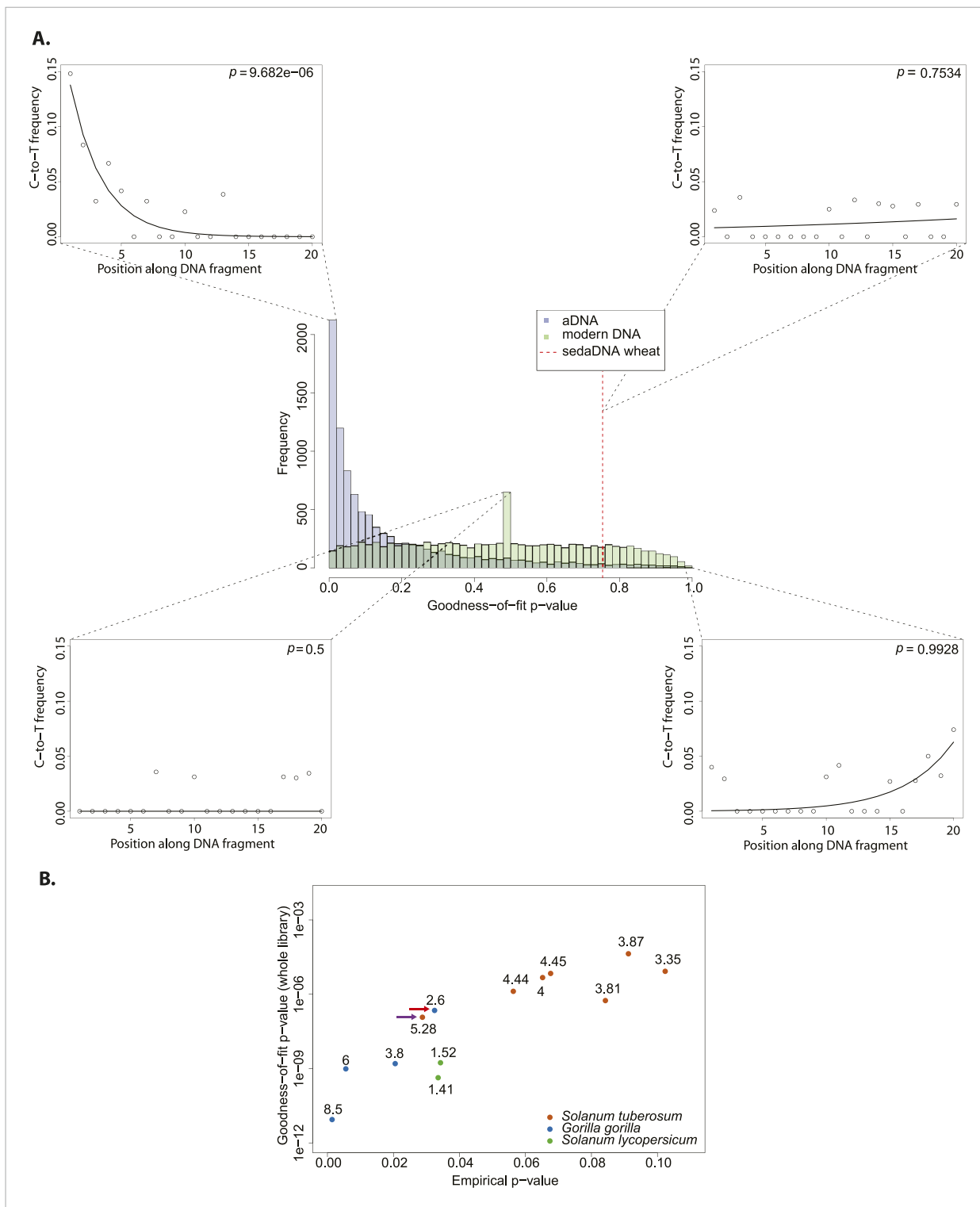


Figure 2. Authenticity test of DNA reads assigned to *Triticum* by Smith et al. **(A)** The histograms in the center panel show the empirical distributions of goodness-of-fit p-values of subsamples of 150 reads from ancient and modern DNA (same libraries as in **Figure 1**). The dotted red line indicates the location of the goodness-of-fit p-value from reads assigned to wheat in sedimentary ancient DNA. The four surrounding panels show cytosine to thymine (C-to-T) substitutions at the 5' end extracted from different point of the goodness-of-fit p-value distributions, and from the reads assigned to wheat in sedimentary ancient DNA. **(B)** Variation of the empirical p-value of the test depending on the goodness-of-fit p-value of the whole library used to generate the empirical distribution. Numbers adjacent to the points indicate the percentage of C-to-T substitutions at first base. Red arrow indicates the aDNA library used as test in **Figure 3A**. Purple arrow indicates the library used to generate the empirical distribution of goodness-of-fit p-values in **Figure 3A–C**. DOI: 10.7554/eLife.10005.004

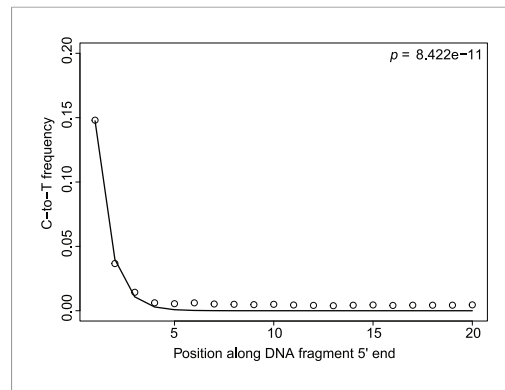


Figure 2—figure supplement 1. Patterns of cytosine to thymine (C-to-T) substitutions at the 5' end from a 7,000-year-old Mesolithic human from La Braña site in Northern Iberia. The line shows the fit with the exponential distribution. The goodness-of-fit p-value is indicated in the upper right corner.

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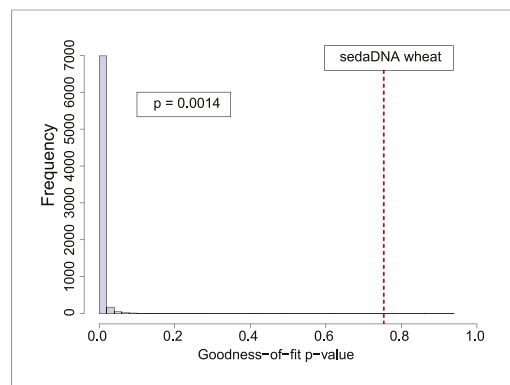


Figure 2—figure supplement 2. Authenticity test of DNA reads assigned to *Triticum* by Smith et al. The histograms shows the empirical distributions of goodness-of-fit p-values of subsamples of 150 reads from a 7,000-year-old Mesolithic human from La Braña site in Northern Iberia. The dotted red line indicates the location of the goodness-of-fit p-value from reads assigned to wheat in sedimentary ancient DNA.

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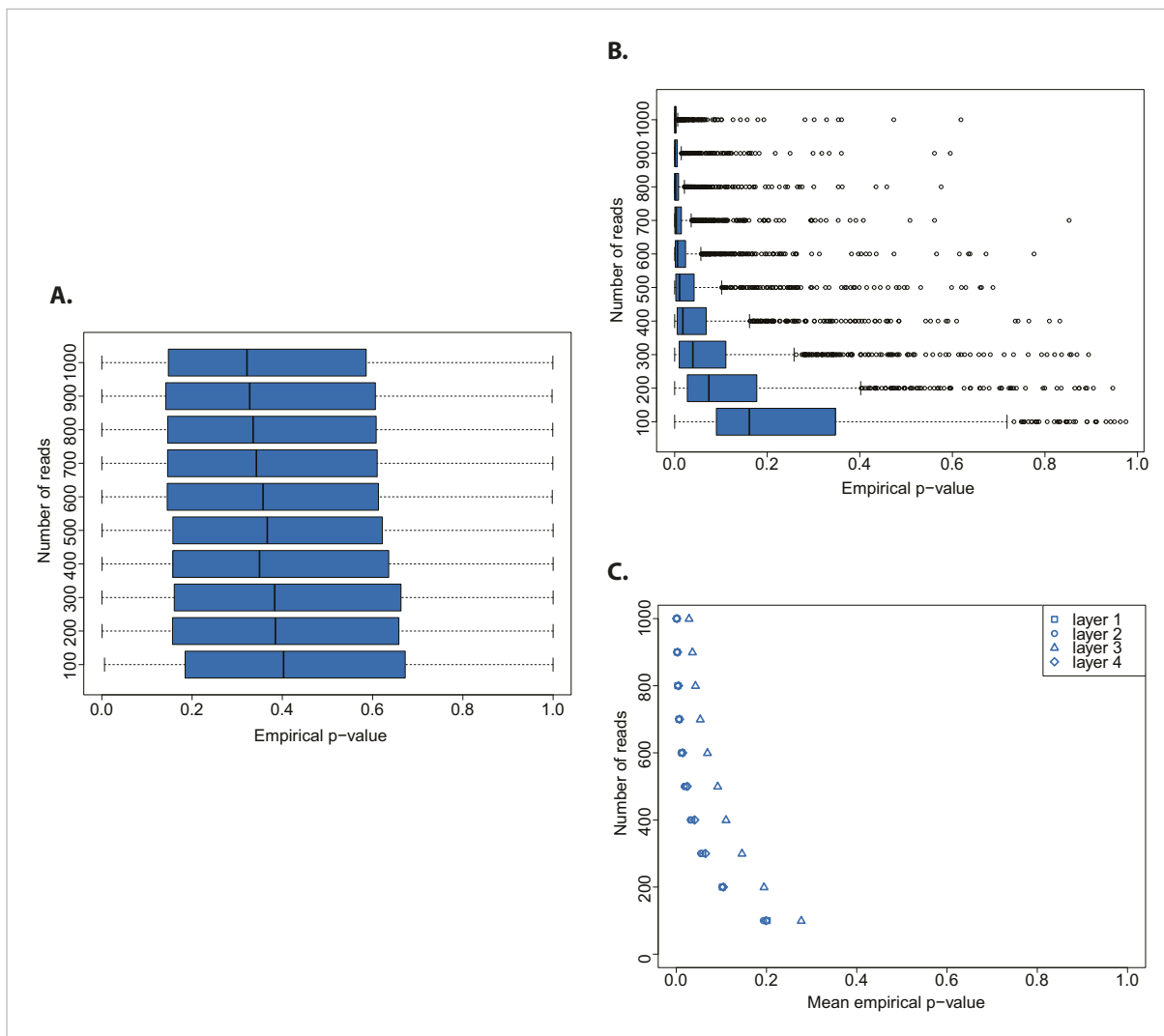


Figure 3. Evaluation of test performance. **(A)** Variation of the empirical p-value of the test depending on the number of reads sampled from an ancient DNA library (indicated with red arrow in **Figure 2B**). **(B)** Variation of the empirical p-value of the test depending on the numbers of reads subsampled from modern DNA *Triticum aestivum* library (same library used to generate the distribution of empirical goodness-of-fit p-values in **Figure 2A**). **(C)** Variation of the empirical p-value of the test depending on the size of sample sets from sedimentary ancient DNA reads mapped directly to the *T. aestivum* genome. Box-and-whisker plots were built based on 1000 tests. Layers as reported in Smith et al. i.e. layer 1 (most superficial), layer 4 (more deep).

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