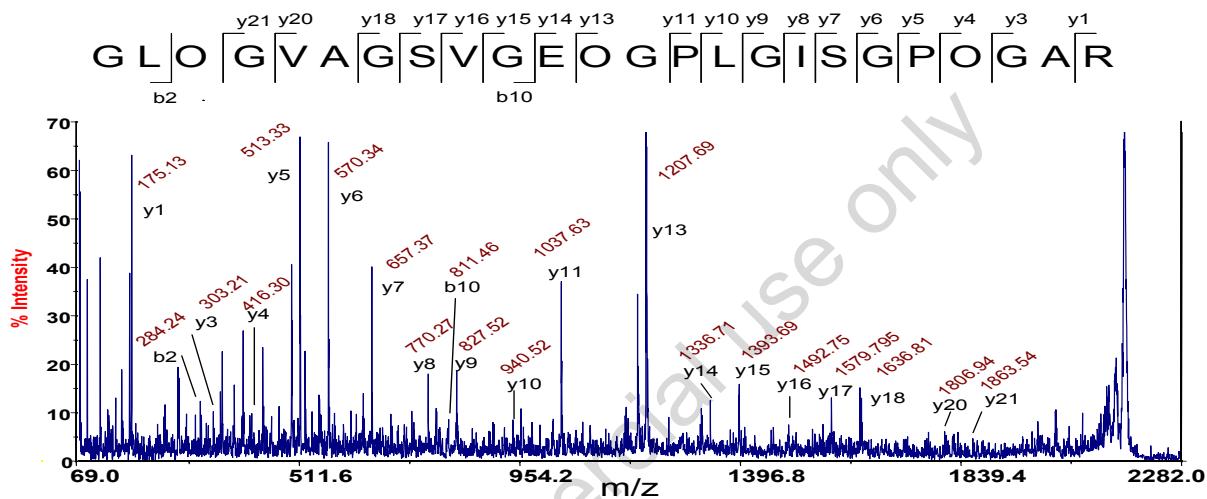


Supplementary Material

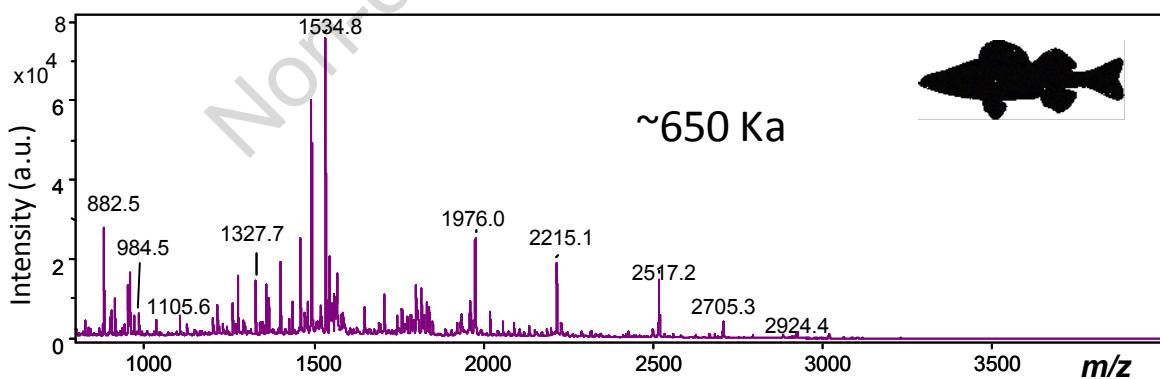
Isotopes on bulk collagen of sample from Wetwang Slack, average of 4 processings:

$d^{13}C = -22.1\text{‰}$; $d^{15}N = 5.5\text{‰}$

Original sample ID: WWH 4A - Context: WN 86 JV. Iron Age slot context a little north of the main cemetery area, containing animal bone.



Supplementary Figure 1. Example of manual interpretation for de novo sequencing of product ion spectra showing the identification of the Peptide B sequence for Ursus/Felis marker at m/z 2163.1.



Supplementary Figure 2. Collagen fingerprint of unidentified fish vertebrae from Cromerian (~650 Ka) West Runton Forest Bed.

Supplementary Table 1. Observation of peptide markers homologous with those reported elsewhere (Buckley *et al.* 2009). A = COL1A2T85, B = COL1A2T43, C = COL1A2T45, D = COL1A2T69, E = COL1A2T41/42, F = COL1A1T55/56, and G = COL1A2T67.

*Markers that could not be supported by genomic or proteomic sequence (MS/MS) data. X = previously unreported markers.

