

Sequential analyses of bovid tooth enamel and dentine collagen ($\delta^{18}\text{O}$, $\delta^{13}\text{C}$, $\delta^{15}\text{N}$): new insights into animal husbandry between the Late Neolithic and the Early Bronze Age at Tana del Barletta (Ligurian Prealps)

L. F. Morandi ^{a,b*}, D. Frémondeau ^c, G. Müldner ^b, R. Maggi ^d

^a Competence Center Archaeometry – Baden-Wuerttemberg, Eberhard-Karls-Universität Tübingen, Tübingen, Germany

^b Department of Archaeology, School of Archaeology, Geography and Environmental Science, University of Reading, Reading, UK

^c Institute of Archaeology, University College London, London, UK

^d L.A.S.A. (Laboratorio di Archeologia e Storia Ambientale), Università di Genova, Genova, Italy

*Corresponding author (lionello.morandi@uni-tuebingen.de)

C:N ratios, C and N content, collagen yield (dentine and bone collagen; a = first measurement; b = second measurement)

Sample	C:N ratio	C content (%)	N content (%)	Coll. yield (%)
TDB-1/1	3.2 (a); 3.2 (b)	35.5 (a); 35.4 (b)	12.8 (a); 12.7 (b)	8.9
TDB-1/2	3.2 (a); 3.2 (b)	43.0 (a); 42.9 (b)	15.6 (a); 15.6 (b)	7.6
TDB-1/3	3.2 (a); 3.2 (b)	32.7 (a); 32.4 (b)	11.8 (a); 12.4 (b)	6.0
TDB-1/4	3.2 (a); 3.2 (b)	35.4 (a); 36.3 (b)	12.8 (a); 13.3 (b)	7.6
TDB-1/5	3.3 (a); 3.2 (b)	27.3 (a); 27.1 (b)	9.5 (a); 9.9 (b)	6.7
TDB-1/6	3.2 (a); 3.2 (b)	36.3 (a); 36.8 (b)	13.3 (a); 13.4 (b)	7.2
TDB-1/7	3.2 (a); 3.3 (b)	29.5 (a); 34.4 (b)	10.6 (a); 10.7 (b)	7.2
TDB-1/8	3.3 (a); 3.2 (b)	30.4 (a); 30.5 (b)	10.9 (a); 11.0 (b)	7.9
TDB-1/9	3.2 (a); 3.2 (b)	37.7 (a); 37.3 (b)	13.7 (a); 13.5 (b)	6.9
TDB-1/10	3.3 (a); 3.3 (b)	42.6 (a); 42.7 (b)	15.3 (a); 15.2 (b)	5.6
TDB-1/11	3.3 (a); 3.3 (b)	42.3 (a); 42.8 (b)	15.1 (a); 15.1 (b)	6.6
TDB-2/1	3.2 (a); 3.2 (b)	30.8 (a); 30.6 (b)	11.1 (a); 11.1 (b)	7.5
TDB-2/2	3.2 (a); 3.3 (b)	29.9 (a); 29.0 (b)	10.8 (a); 10.4 (b)	6.8
TDB-2/3	3.3 (a); 3.2 (b)	25.4 (a); 26.1 (b)	9.0 (a); 9.4 (b)	6.1
TDB-2/4	3.3 (a); 3.3 (b)	28.6 (a); 27.9 (b)	10.2 (a); 9.9 (b)	6.5
TDB-2/5	3.3 (a); 3.3 (b)	22.6 (a); 22.7 (b)	7.9 (a); 8.1 (b)	6.8
TDB-2/6	3.3 (a); 3.3 (b)	24.7 (a); 24.1 (b)	8.8 (a); 8.5 (b)	5.6
TDB-2/7	3.3 (a); 3.3 (b)	28.6 (a); 30.0 (b)	10.2 (a); 10.6 (b)	3.2
TDB-3/1	3.2 (a); 3.3 (b)	42.2 (a); 42.7 (b)	15.2 (a); 15.2 (b)	5.8
TDB-3/2	3.2 (a); 3.3 (b)	43.4 (a); 42.5 (b)	15.7 (a); 15.1 (b)	5.8
TDB-3/3	3.4 (a); 3.2 (b)	43.4 (a); 42.8 (b)	15.0 (a); 15.3 (b)	7.0
TDB-3/4	3.2 (a); 3.2 (b)	43.2 (a); 42.2 (b)	15.7 (a); 15.1 (b)	7.8
TDB-3/5	3.2 (a); 3.2 (b)	43.6 (a); 43.4 (b)	15.6 (a); 15.4 (b)	8.0

TDB-3/6	3.2 (a); 3.3 (b)	42.1 (a); 42.6 (b)	15.1 (a); 15.2 (b)	6.0
TDB-3/7	3.3 (a); 3.3 (b)	42.5 (a); 42.5 (b)	15.2 (a); 15.2 (b)	2.7
TDB-4/1	3.2 (a); 3.2 (b)	36.0 (a); 36.9 (b)	13.0 (a); 13.3 (b)	9.3
TDB-4/2	3.3 (a); 3.2 (b)	24.2 (a); 26.0 (b)	8.6 (a); 9.4 (b)	7.1
TDB-4/3	3.2 (a); 3.3 (b)	22.9 (a); 22.5 (b)	8.2 (a); 8.0 (b)	6.4
TDB-4/4	3.3 (a); 3.3 (b)	20.3 (a); 20.5 (b)	7.2 (a); 7.2 (b)	4.5
TDB-4/5*	3.9 (a); 3.9 (b)	7.6 (a); 7.6 (b)	2.3 (a); 2.3 (b)	0.8
TDB-5/1	3.3 (a); 3.2 (b)	29.3 (a); 28.9 (b)	10.4 (a); 10.5 (b)	8.1
TDB-5/2	3.2 (a); 3.2 (b)	28.8 (a); 28.5 (b)	10.5 (a); 10.2 (b)	7.0
TDB-5/3	3.2 (a); 3.2 (b)	27.9 (a); 28.3 (b)	10.1 (a); 10.3 (b)	7.8
TDB-5/4	3.3 (a); 3.3 (b)	27.6 (a); 27.5 (b)	9.9 (a); 9.8 (b)	5.1
TDB-5/5	3.3 (a); 3.2 (b)	28.2 (a); 27.9 (b)	10.0 (a); 10.1 (b)	6.0
TDB-5/6	3.3 (a); 3.3 (b)	24.9 (a); 25.2 (b)	8.8 (a); 8.8 (b)	5.5
TDB-5/7	3.4 (a); 3.5 (b)	19.6 (a); 20.0 (b)	6.7 (a); 6.7 (b)	1.1
TDB-6/1	3.2 (a); 3.2 (b)	43.2 (a); 43.2 (b)	15.8 (a); 15.7 (b)	6.4
TDB-6/2	3.2 (a); 3.2 (b)	37.1 (a); 38.0 (b)	13.5 (a); 13.9 (b)	7.6
TDB-6/3	3.2 (a); 3.2 (b)	32.1 (a); 31.8 (b)	11.5 (a); 11.4 (b)	7.1
TDB-6/4	3.2 (a); 3.1 (b)	38.7 (a); 39.5 (b)	14.2 (a); 14.7 (b)	8.2
TDB-6/5	3.2 (a); 3.2 (b)	35.1 (a); 36.8 (b)	12.9 (a); 13.4 (b)	7.1
TDB-6/6	3.2 (a); 3.1 (b)	33.5 (a); 36.1 (b)	12.3 (a); 13.3 (b)	7.3
TDB-6/7	3.2 (a); 3.2 (b)	33.4 (a); 33.0 (b)	12.2 (a); 11.8 (b)	6.2
TDB-4-5 (jaw)	3.2 (a); 3.3 (b)	39.1 (a); 40.6 (b)	14.1 (a); 14.5 (b)	8.7
TDB-7-8 (jaw)	3.2 (a); 3.2 (b)	43.5 (a); 43.7 (b)	15.6 (a); 15.7 (b)	13.8
TDB-9-10 (jaw)**	3.7 (a); 3.7 (b)	14.8 (a); 15.7 (b)	4.7 (a); 5.0 (b)	11.2

* = sample not taken into account due to C:N ratio and collagen yield content out of the accepted range

** = sample not taken into account due to C:N ratio, C content and N content out of the accepted range