

Appendix 1.

Supplementary Data

Mining at the Fringes. High-Altitude Prehistoric Copper Mining in the Oberhalbstein Valley (Grisons, Switzerland)

Leandra Reitmaier-Naef

Peter Thomas

Julia Bucher

Monika Oberhänsli

Caroline O. Grutsch

Klaus-Peter Martinek

Mathias Seifert

Philippe Rentzel

Rouven Turck

Thomas Reitmaier

Philippe Della Casa

The following data contain all raw values of dendrochronological analysis carried out from Avagna-Ochsenalp and Cotschens. Dendrochronological values refer to the historical time scale where the year “0” does not exist.

doi: 10.1553/archaeologia104s123-A

Tree-ring width values in 1/100 mm**Zurich format**

No. 87895.0 undated conifera 98 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MS
18203.1047

1 - 10 22 27 19 25 19 25 22 24 8 16
 11 - 20 18 19 26 15 18 8 11 13 14 21
 21 - 30 30 30 25 21 30 32 22 36 28 28
 31 - 40 30 30 39 36 36 28 37 30 34 38
 41 - 50 42 45 38 37 38 36 45 52 39 44
 51 - 60 33 38 31 28 31 21 26 26 32 25
 61 - 70 22 30 27 28 19 37 32 25 34 29
 71 - 80 29 21 23 29 26 23 33 33 33 31
 81 - 90 21 38 25 30 27 30 24 29 24 32
 91 - 98 25 36 25 25 34 38 42 41

(edited: 20181208)

No. 87896.0 undated conifera 42 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MS
18203.1048

1 - 10 24 28 34 29 32 31 37 29 30 37
 11 - 20 40 37 43 37 30 41 45 39 33 32
 21 - 30 50 43 35 35 28 39 31 28 25 32
 31 - 40 29 36 30 48 38 35 47 51 26 38
 41 - 42 36 39

(edited: 20181208)

No. 87897.0 Date: -1112 b conifera 68 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MS
18203.1049

1 - 10 19 17 27 28 15 23 19 16 12 16
 11 - 20 13 14 11 12 17 21 17 20 28 30
 21 - 30 39 36 32 35 50 36 30 28 23 22
 31 - 40 31 26 16 30 31 24 22 20 22 27
 41 - 50 35 39 29 37 30 31 29 18 42 30
 51 - 60 31 48 51 45 38 39 35 35 47 38
 61 - 68 35 36 46 48 50 57 63 55

(edited: 20181208)

No. 88629.0 undated conifera 57 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.1

1 - 10 50 50 44 46 51 40 50 50 52 53
 11 - 20 53 44 56 52 46 45 40 47 43 51
 21 - 30 29 44 31 30 33 36 26 32 30 42
 31 - 40 33 34 29 29 25 20 27 21 21 29
 41 - 50 27 31 25 23 25 22 27 24 33 36
 51 - 57 40 30 30 37 41 40 55

(edited: 20181208)

No. 88630.0 undated conifera 36 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.2

1 - 10 41 49 34 57 59 66 31 45 29 36
 11 - 20 65 44 42 34 45 59 45 34 41 56
 21 - 30 65 40 31 59 52 36 68 63 45 49
 31 - 36 32 52 32 30 40 36

(edited: 20181208)

No. 88631.0 undated conifera 31 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.3

1 - 10 44 27 39 38 44 35 29 40 38 31
11 - 20 26 26 43 37 53 42 32 42 32 39
21 - 30 43 49 30 41 38 53 53 49 75 58
31 - 31 45

(edited: 20181208)

No. 88632.0 undated conifera 29 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.4

1 - 10 122 107 90 80 59 42 60 46 44 55
11 - 20 56 57 62 58 39 51 56 51 60 68
21 - 29 39 40 48 43 32 40 45 50 66

(edited: 20181208)

No. 88633.0 Date: -1058 a conifera 52 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.5

1 - 10 36 39 46 35 29 27 34 49 38 24
11 - 20 24 36 29 33 24 30 18 25 26 42
21 - 30 26 20 19 30 9 21 17 21 22 16
31 - 40 18 15 12 19 24 29 22 15 18 13
41 - 50 13 10 11 11 10 13 10 11 7 7
51 - 52 6 11

(edited: 20181208)

No. 88634.0 undated conifera 46 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.6

1 - 10 42 44 32 50 48 46 36 44 31 56
11 - 20 38 48 40 44 52 35 36 34 35 43
21 - 30 39 45 38 40 39 37 34 39 37 54
31 - 40 46 37 37 37 42 42 48 36 46 39
41 - 46 26 45 30 34 46 38

(edited: 20181208)

No. 88635.0 Date: -1061 a conifera 36 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.7

1 - 10 79 54 56 45 56 59 77 72 47 65
11 - 20 65 29 54 68 78 73 60 75 52 47
21 - 30 47 57 79 52 52 47 49 52 34 49
31 - 36 59 62 68 76 68 88

(edited: 20181208)

No. 88636.0 undated conifera 26 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.8

1 - 10 60 38 54 54 78 46 64 67 64 70
11 - 20 87 63 56 50 77 39 57 52 48 64
21 - 26 53 56 47 44 44 38

(edited: 20181208)

No. 88637.0 Date: -1067 a conifera 57 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.9

1 - 10 35 24 33 34 41 44 33 39 36 37
 11 - 20 35 36 35 31 21 26 28 30 20 17
 21 - 30 19 26 20 15 15 19 12 16 17 19
 31 - 40 16 16 15 23 13 12 9 14 5 16
 41 - 50 12 13 17 11 15 13 14 16 10 17
 51 - 57 12 12 15 10 10 11 17

(edited: 20181208)

No. 88638.0 undated conifera 50 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.10

1 - 10 80 60 34 23 36 47 47 35 46 38
 11 - 20 45 38 51 56 48 42 42 42 35 40
 21 - 30 42 46 39 28 35 31 24 21 23 23
 31 - 40 22 25 18 25 19 17 11 11 13 16
 41 - 50 13 21 11 21 10 16 18 13 11 9

(edited: 20181208)

No. 88639.0 Date: -1069 a conifera 38 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.11

1 - 10 94 70 69 86 78 72 72 54 60 60
 11 - 20 66 46 67 53 61 48 71 61 43 43
 21 - 30 62 35 62 51 62 65 51 90 72 53
 31 - 38 52 57 66 58 56 55 46 57

(edited: 20181208)

No. 88640.0 undated conifera 65 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.12

1 - 10 75 70 70 78 72 70 63 63 72 70
 11 - 20 58 48 59 62 80 65 70 69 74 81
 21 - 30 63 58 58 61 65 70 75 66 62 58
 31 - 40 62 54 61 48 40 37 40 34 40 40
 41 - 50 29 22 29 26 21 19 22 20 27 25
 51 - 60 32 25 30 23 22 25 20 14 21 18
 61 - 65 13 20 15 22 25

(edited: 20181208)

No. 88641.0 undated conifera 41 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.13

1 - 10 51 51 61 58 56 49 51 37 45 43
 11 - 20 40 38 46 43 52 54 55 48 52 45
 21 - 30 51 46 49 42 58 60 58 53 48 41
 31 - 40 44 50 48 55 48 53 47 48 48 59
 41 - 41 52

(edited: 20181208)

No. 88642.0 undated conifera 22 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.14

1 - 10 35 23 38 29 46 33 38 24 20 29
 11 - 20 15 21 28 25 27 29 29 29 34 31
 21 - 22 43 20

(edited: 20181208)

No. 88643.0 undated conifera 71 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.15

1 - 10 40 17 29 21 32 23 22 16 15 18
 11 - 20 19 22 12 15 20 17 10 18 24 25
 21 - 30 21 19 21 12 23 18 17 31 20 11
 31 - 40 16 7 16 11 12 16 17 17 10 9
 41 - 50 13 10 20 9 10 9 11 8 9 12
 51 - 60 12 14 17 17 11 17 15 12 4 8
 61 - 70 11 8 7 6 7 9 11 11 7 4
 71 - 71 12

(edited: 20190423)

No. 88644.0 Date: -1059 a conifera 61 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.16

1 - 10 64 71 56 59 76 69 74 72 73 52
 11 - 20 32 42 38 32 15 22 28 28 26 19
 21 - 30 18 24 18 24 17 21 18 25 24 33
 31 - 40 31 26 31 33 12 27 30 30 34 30
 41 - 50 25 32 20 24 25 28 22 22 21 20
 51 - 60 26 14 21 26 24 29 27 27 30 33
 61 - 61 35

(edited: 20181208)

No. 88645.0 undated conifera 33 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.17

1 - 10 43 48 42 45 20 47 34 23 38 36
 11 - 20 29 34 29 24 35 31 25 31 42 38
 21 - 30 41 40 48 44 45 35 37 37 33 29
 31 - 33 38 23 30

(edited: 20181208)

No. 88646.0 undated conifera 29 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.18

1 - 10 36 38 43 24 36 34 38 43 38 47
 11 - 20 29 36 36 29 34 36 29 34 28 30
 21 - 29 34 37 39 40 45 38 40 45 54

(edited: 20181208)

No. 88647.0 Date: -1079 a conifera 24 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.19

1 - 10 100 100 90 64 75 62 73 68 75 54
 11 - 20 73 70 97 84 63 69 68 46 69 63
 21 - 24 71 71 62 98

(edited: 20181208)

No. 88648.0 Date: -1065 a conifera 40 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.2.20

1 - 10 146 121 109 104 85 68 73 56 58 48
 11 - 20 61 41 50 45 66 49 49 41 60 27
 21 - 30 57 50 59 63 52 63 57 44 42 49
 31 - 40 64 60 53 53 51 61 39 51 52 67

(edited: 20181208)

No. 88649.0 undated conifera 32 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.21

1 - 10 108 117 119 87 97 95 72 58 65 97
11 - 20 37 37 35 55 38 31 38 36 48 38
21 - 30 31 27 38 30 34 37 44 16 33 38
31 - 32 37 32

(edited: 20181208)

No. 88650.0 undated conifera 36 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.22

1 - 10 85 67 68 84 39 29 36 43 42 36
11 - 20 46 30 36 38 35 28 35 26 23 35
21 - 30 30 21 34 22 30 31 34 36 43 32
31 - 36 25 39 35 34 31 40

(edited: 20181208)

No. 88651.0 undated conifera 61 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.23

1 - 10 57 53 53 44 51 51 40 39 40 39
11 - 20 46 34 33 29 25 28 27 31 33 31
21 - 30 34 38 41 37 35 37 31 37 29 31
31 - 40 32 25 37 39 39 36 33 34 33 35
41 - 50 32 40 44 49 40 41 45 54 58 52
51 - 60 61 39 41 31 34 25 33 40 40 38
61 - 61 51

(edited: 20181208)

No. 88652.0 undated conifera 39 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.24

1 - 10 88 104 91 97 99 75 54 25 47 45
11 - 20 45 63 94 46 57 45 59 55 52 43
21 - 30 48 60 54 65 56 65 73 85 62 65
31 - 39 70 40 38 46 44 32 50 42 46

(edited: 20181208)

No. 88653.0 Date: -1061 a conifera 52 values autumn/winter
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.25; bast remains

1 - 10 28 23 24 19 24 31 26 20 30 35
11 - 20 31 26 28 24 33 24 27 26 38 23
21 - 30 27 25 36 26 27 27 31 21 36 33
31 - 40 28 41 39 36 34 34 34 32 35 31
41 - 50 30 34 32 38 28 31 36 36 38 26
51 - 52 33 37

(edited: 20181208)

No. 88654.0 undated conifera 70 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.2.26

1 - 10 142 149 158 146 109 92 116 104 106 109
11 - 20 104 104 99 80 78 86 72 64 65 61
21 - 30 78 66 57 59 53 50 49 44 52 49
31 - 40 52 65 67 39 47 60 79 73 81 59
41 - 50 59 60 61 38 55 46 40 42 47 45
51 - 60 50 42 48 46 59 47 55 46 36 40
61 - 70 35 34 36 29 38 34 32 33 21 32

(edited: 20181208)

No. 88655.0 Date: -1079 a conifera 25 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.2.27
 1 - 10 46 85 102 78 65 72 61 68 60 69
 11 - 20 59 62 62 85 79 54 63 53 39 64
 21 - 25 65 56 70 64 73
 (edited: 20181208)

No. 88656.0 Date: -1078 a conifera 36 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.2.28
 1 - 10 84 71 71 62 46 60 49 51 25 39
 11 - 20 32 37 35 23 24 34 30 37 25 33
 21 - 30 39 46 47 58 51 33 45 34 13 32
 31 - 36 39 27 35 29 26 33
 (edited: 20181208)

No. 88657.0 undated conifera 28 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.2.29
 1 - 10 76 82 62 62 67 61 59 54 59 50
 11 - 20 44 53 55 51 45 44 72 67 74 56
 21 - 28 43 63 57 73 67 75 52 73
 (edited: 20181208)

No. 88658.0 Date: -1062 a conifera 46 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.1
 1 - 10 55 43 58 45 53 50 52 52 42 50
 11 - 20 52 64 52 52 40 56 39 67 47 43
 21 - 30 54 48 23 41 42 45 48 41 53 37
 31 - 40 32 32 41 46 32 30 25 23 19 15
 41 - 46 16 22 14 9 11 7
 (edited: 20181208)

No. 88659.0 Date: -1063 a conifera 44 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.2
 1 - 10 97 91 59 92 77 76 70 57 74 73
 11 - 20 75 67 69 63 70 61 90 63 70 86
 21 - 30 65 40 70 79 77 75 61 90 88 68
 31 - 40 61 59 69 48 38 31 20 14 11 15
 41 - 44 11 6 10 9
 (edited: 20181208)

No. 88660.0 undated conifera 49 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.3
 1 - 10 64 55 60 57 48 42 39 47 45 50
 11 - 20 35 32 44 34 34 35 32 28 35 28
 21 - 30 47 35 27 36 34 26 33 22 30 37
 31 - 40 30 32 30 23 23 23 28 24 20 19
 41 - 49 19 20 19 20 23 25 25 26 34
 (edited: 20181208)

No. 88661.0 undated conifera 58 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.4

1 - 10 63 65 50 43 47 29 51 57 49 46
 11 - 20 31 44 54 35 49 41 39 31 43 33
 21 - 30 32 29 32 30 45 34 36 43 38 40
 31 - 40 38 38 33 37 46 42 50 38 30 54
 41 - 50 30 27 47 38 37 28 27 35 21 36
 51 - 58 34 35 30 37 29 40 37 22

(edited: 20181208)

No. 88662.0 Date: -1075 a conifera 43 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.5

1 - 10 65 64 74 61 59 57 63 59 43 42
 11 - 20 48 34 30 28 41 44 54 38 25 35
 21 - 30 26 40 29 43 29 37 32 58 52 38
 31 - 40 45 69 16 14 23 32 42 30 35 18
 41 - 43 21 26 21

(edited: 20181208)

No. 88663.0 undated conifera 67 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.6

1 - 10 52 47 61 54 43 41 49 34 58 43
 11 - 20 45 52 54 43 43 43 50 50 40 37
 21 - 30 41 47 40 34 31 29 36 38 27 22
 31 - 40 39 33 39 35 39 35 36 34 32 20
 41 - 50 29 20 26 19 20 26 22 32 28 39
 51 - 60 35 34 36 37 31 30 27 34 29 34
 61 - 67 30 28 36 42 36 36 54

(edited: 20181208)

No. 88664.0 undated conifera 31 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.7

1 - 10 48 51 49 52 42 34 41 35 47 37
 11 - 20 33 31 37 36 44 35 47 47 37 50
 21 - 30 39 25 32 27 30 34 28 41 30 24
 31 - 31 25

(edited: 20181208)

No. 88665.0 undated conifera 33 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.8

1 - 10 156 150 158 156 130 156 192 142 125 153
 11 - 20 143 98 74 146 152 108 113 70 97 106
 21 - 30 109 90 111 95 95 70 65 65 94 85
 31 - 33 119 47 95

(edited: 20181208)

No. 88666.0 undated conifera 55 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.9

1 - 10 63 52 70 64 58 59 51 67 72 62
 11 - 20 49 59 45 42 47 51 37 37 42 35
 21 - 30 38 31 32 33 39 42 39 47 44 34
 31 - 40 35 26 34 26 21 30 31 28 29 21
 41 - 50 26 26 29 27 34 36 37 33 26 33
 51 - 55 33 29 29 28 32

(edited: 20181208)

No. 88667.0 undated conifera 27 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.10
 1 - 10 37 32 34 45 42 43 38 34 38 36
 11 - 20 44 43 52 38 46 45 52 48 57 65
 21 - 27 38 36 45 47 28 28 52
 (edited: 20181208)

No. 88668.0 Date: -1076 a conifera 37 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.11
 1 - 10 20 23 31 23 30 28 24 21 20 25
 11 - 20 20 21 15 14 17 17 30 21 33 21
 21 - 30 24 24 36 29 24 24 51 17 23 22
 31 - 37 22 23 15 11 9 6 9
 (edited: 20181208)

No. 88669.0 undated conifera 35 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.12
 1 - 10 34 61 46 47 51 53 57 41 27 28
 11 - 20 36 42 48 54 41 41 34 40 47 49
 21 - 30 42 46 60 60 63 62 67 77 75 66
 31 - 35 67 71 52 47 88
 (edited: 20181208)

No. 88670.0 undated conifera 39 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.5.13
 1 - 10 67 67 39 46 46 56 50 25 45 36
 11 - 20 40 56 54 59 60 56 50 59 64 62
 21 - 30 75 68 84 75 72 73 76 79 73 62
 31 - 39 59 65 58 54 52 34 67 64 56
 (edited: 20181208)

No. 88671.0 Date: -1063 a conifera 59 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.6.1
 1 - 10 77 68 58 63 50 54 59 56 70 63
 11 - 20 65 45 34 45 41 33 18 22 31 38
 21 - 30 24 25 20 29 20 23 20 27 18 31
 31 - 40 20 40 29 34 31 32 15 22 29 36
 41 - 50 30 26 27 32 19 25 20 25 20 20
 51 - 59 22 20 23 15 25 25 31 34 31
 (edited: 20181208)

No. 88672.0 undated conifera 32 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.6.2
 1 - 10 27 28 38 43 45 35 49 43 39 32
 11 - 20 35 39 33 35 37 23 47 47 32 36
 21 - 30 38 35 29 38 39 32 34 38 41 45
 31 - 32 35 48
 (edited: 20181208)

No. 88673.0 undated conifera 31 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.6.3

1 - 10 91 166 95 104 102 80 67 85 67 54
11 - 20 83 77 78 78 69 58 81 84 84 79
21 - 30 42 32 48 46 60 54 60 59 62 51
31 - 31 63

(edited: 20181208)

No. 88674.0 Date: -1081 a conifera 38 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.6.4

1 - 10 68 63 69 67 71 58 56 72 84 45
11 - 20 51 53 52 23 32 55 53 45 37 31
21 - 30 42 46 61 40 52 42 58 44 65 50
31 - 38 35 48 52 19 44 37 44 73

(edited: 20181208)

No. 88675.0 Date: -1071 a conifera 38 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.6.5

1 - 10 36 55 43 15 23 47 48 47 27 19
11 - 20 44 35 50 36 56 30 36 44 62 41
21 - 30 37 28 37 16 37 41 45 56 36 45
31 - 38 33 32 37 39 56 42 30 43

(edited: 20181208)

No. 88676.0 Date: -1111 a conifera 76 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.6.6

1 - 10 51 42 50 32 55 48 54 45 47 45
11 - 20 51 32 39 47 47 50 50 48 60 57
21 - 30 46 54 56 56 52 46 57 52 51 50
31 - 40 53 66 49 45 53 40 36 45 42 36
41 - 50 49 55 30 34 43 30 29 33 39 34
51 - 60 35 43 41 54 40 52 44 27 42 35
61 - 70 46 38 34 45 48 61 36 48 44 41
71 - 76 41 45 48 46 37 45

(edited: 20181208)

No. 88677.0 undated conifera 33 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.6.7

1 - 10 52 93 98 97 81 59 80 86 81 73
11 - 20 101 73 99 88 110 87 109 77 66 39
21 - 30 78 67 79 158 88 77 55 69 82 98
31 - 33 77 61 48

(edited: 20181208)

No. 88678.0 Date: -1105 a conifera 50 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.6.8

1 - 10 64 57 49 50 34 50 44 30 48 43
11 - 20 39 38 40 45 35 52 48 40 45 50
21 - 30 51 54 37 55 54 32 43 40 46 35
31 - 40 37 47 58 74 62 74 56 53 45 46
41 - 50 48 41 46 52 68 52 35 36 33 38

(edited: 20181208)

No. 88679.0 undated conifera 46 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.7.1
 1 - 10 48 37 38 34 31 36 32 29 31 36
 11 - 20 21 32 29 14 23 22 22 18 25 27
 21 - 30 18 19 24 18 28 25 18 28 15 31
 31 - 40 29 31 25 36 31 32 21 30 25 27
 41 - 46 22 29 43 53 35 45
 (edited: 20181208)

No. 88680.0 undated conifera 32 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.7.2
 1 - 10 69 90 101 87 87 89 106 86 68 81
 11 - 20 84 56 61 67 56 48 53 61 60 63
 21 - 30 56 43 44 45 55 62 72 44 62 63
 31 - 32 98 68
 (edited: 20181208)

No. 88681.0 undated conifera 51 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.7.3
 1 - 10 29 31 24 23 16 29 22 18 19 24
 11 - 20 26 21 17 23 20 24 16 22 24 25
 21 - 30 22 25 28 32 31 26 28 23 27 22
 31 - 40 22 16 16 23 20 20 19 17 13 12
 41 - 50 19 14 18 13 18 16 15 16 17 19
 51 - 51 20
 (edited: 20181208)

No. 88682.0 undated conifera 39 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.7.4
 1 - 10 88 67 61 63 71 66 59 68 60 59
 11 - 20 53 59 55 55 50 52 56 56 54 47
 21 - 30 56 52 59 47 41 51 57 53 55 46
 31 - 39 62 57 67 56 73 76 84 65 65
 (edited: 20181208)

No. 88683.0 undated conifera 47 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.8.1
 1 - 10 101 80 68 62 69 65 44 43 48 43
 11 - 20 38 39 37 48 46 51 45 42 41 47
 21 - 30 45 46 37 40 24 36 36 36 33 43
 31 - 40 49 54 50 84 97 63 55 73 34 44
 41 - 47 35 55 53 63 67 73 70
 (edited: 20181208)

No. 88684.0 Date: -1078 a conifera 42 values
 GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
 67459.8.2
 1 - 10 25 22 28 24 28 26 27 24 26 30
 11 - 20 25 29 32 27 23 18 25 28 29 20
 21 - 30 21 25 19 37 23 33 24 32 29 42
 31 - 40 29 24 28 50 25 19 14 15 14 6
 41 - 42 9 5
 (edited: 20181208)

No. 88685.0 undated conifera 43 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.8.3

1 - 10 46 65 38 32 26 33 30 27 30 30
11 - 20 23 30 22 46 29 25 35 32 20 18
21 - 30 27 28 24 20 23 22 18 21 24 26
31 - 40 20 13 16 20 15 16 15 16 18 14
41 - 43 13 11 15

(edited: 20181208)

No. 88686.0 undated conifera 39 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.8.4

1 - 10 99 79 75 71 70 62 56 62 60 87
11 - 20 84 79 80 73 58 48 32 47 45 52
21 - 30 48 43 38 40 31 45 37 53 47 41
31 - 39 42 37 36 37 35 31 32 30 30

(edited: 20181208)

No. 88687.0 Date: -1061 a conifera 47 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.8.5

1 - 10 89 79 75 73 107 76 99 85 60 93
11 - 20 87 103 80 105 70 93 77 114 94 73
21 - 30 65 68 43 65 53 66 54 40 45 36
31 - 40 37 35 36 34 38 33 26 32 28 31
41 - 47 36 47 31 50 47 43 45

(edited: 20181208)

No. 88688.0 undated conifera 31 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.8.6

1 - 10 46 70 65 50 44 44 50 62 56 66
11 - 20 45 59 60 55 47 38 39 57 42 59
21 - 30 57 48 49 45 46 39 44 49 46 46
31 - 31 38

(edited: 20181208)

No. 88689.0 Date: -1061 a conifera 56 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.9.1

1 - 10 35 43 44 48 39 33 44 21 35 34
11 - 20 29 27 18 33 37 37 31 28 30 32
21 - 30 22 29 36 30 25 23 32 32 26 26
31 - 40 26 12 26 20 29 33 31 43 27 30
41 - 50 35 31 39 38 30 34 30 25 20 30
51 - 56 42 42 46 32 36 38

(edited: 20181208)

No. 88690.0 undated conifera 53 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.9.2

1 - 10 73 78 61 83 93 99 70 76 122 112
11 - 20 93 83 57 55 55 64 59 62 63 52
21 - 30 57 67 70 58 58 63 60 65 45 59
31 - 40 57 49 55 56 46 53 48 38 30 37
41 - 50 36 26 31 37 39 49 53 56 38 50
51 - 53 46 45 32

(edited: 20181208)

No. 88691.0 Date: -1083 a conifera 79 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.9.3

1 - 10 79 92 71 60 61 79 88 63 61 65
11 - 20 47 51 62 52 31 62 57 52 54 61
21 - 30 65 72 68 72 40 76 57 49 59 29
31 - 40 61 55 28 34 47 47 38 40 45 40
41 - 50 75 57 59 62 50 52 55 51 39 44
51 - 60 42 47 25 35 37 35 22 25 36 40
61 - 70 40 21 13 28 22 34 27 36 25 29
71 - 79 29 44 34 26 26 42 17 26 39

(edited: 20181208)

No. 88692.0 Date: -1043 a conifera 63 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.9.4

1 - 10 37 64 46 63 56 66 67 43 35 54
11 - 20 57 80 78 83 70 79 78 73 78 82
21 - 30 43 75 79 70 75 63 55 76 52 59
31 - 40 60 54 53 54 44 29 40 34 36 37
41 - 50 45 55 60 69 67 55 55 78 73 72
51 - 60 68 70 67 61 70 52 42 59 61 46
61 - 63 46 61 51

(edited: 20181208)

No. 88693.0 undated conifera 51 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.9.5

1 - 10 36 41 37 37 31 38 47 36 32 39
11 - 20 38 35 30 31 33 27 26 30 36 38
21 - 30 37 32 36 39 26 32 35 21 21 22
31 - 40 24 25 27 20 31 26 25 25 21 23
41 - 50 22 22 23 22 17 19 24 24 25 28
51 - 51 27

(edited: 20181208)

No. 88694.0 undated conifera 42 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.9.6

1 - 10 50 43 45 32 37 40 31 27 31 43
11 - 20 31 37 45 37 30 38 35 27 30 35
21 - 30 27 34 38 31 34 36 26 25 26 25
31 - 40 20 22 17 24 27 22 26 27 23 17
41 - 42 25 22

(edited: 20181208)

No. 88695.0 Date: -1071 a conifera 32 values
GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO
67459.9.7

1 - 10 36 35 22 21 35 28 42 32 43 26
11 - 20 37 34 56 40 36 31 39 17 38 40
21 - 30 46 45 32 40 27 25 31 34 43 46
31 - 32 31 31

(edited: 20181208)

No. 88696.0 undated conifera 51 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.9.8

1 - 10 65 60 56 46 46 42 41 37 46 43
 11 - 20 27 31 42 34 33 26 27 23 27 28
 21 - 30 28 38 29 32 31 38 26 29 31 27
 31 - 40 19 27 22 21 27 25 25 23 21 20
 41 - 50 25 20 20 18 25 19 16 19 23 31
 51 - 51 25

(edited: 20181208)

No. 88697.0 undated conifera 23 values

GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

67459.9.9

1 - 10 131 112 102 101 157 138 115 106 68 86
 11 - 20 95 92 70 92 95 101 76 84 81 76
 21 - 23 96 92 69

(edited: 20181208)

No. 5096.0 Date: -1043 A conifera 144 values

+MK: GR/TINIZONG-RONA, AVAGNA-OCHSENALP MO

1174-1043 BC

1 - 10 51 42 50 32 55 48 54 45 47 45
 1x 1x 1x 1x 1x 1x 1x 1x 1x 1x 1x
 11 - 20 51 32 39 47 47 50 50 48 60 57
 1x 1x 1x 1x 1x 1x 1x 1x 1x 1x 1x
 21 - 30 46 54 56 56 52 62 74 61 55 55
 1x 1x 1x 1x 1x 2x 2x 2x 2x 2x 2x
 31 - 40 66 77 58 54 55 45 40 52 46 32
 2x 2x 3x 3x 3x 3x 3x 3x 3x 3x 3x
 41 - 50 53 51 40 42 48 46 45 51 53 38
 3x 3x 3x 3x 3x 3x 3x 3x 3x 3x 3x
 51 - 60 52 50 47 55 35 56 51 29 39 40
 3x 3x 3x 3x 3x 3x 3x 3x 3x 3x 3x
 61 - 70 46 37 37 43 42 64 51 52 53 48
 3x 3x 3x 4x 4x 5x 5x 7x 8x 9x 9x
 71 - 80 48 52 51 52 45 47 48 32 37 43
 10x 10x 10x 11x 13x 13x 12x 13x 14x 16x 16x
 81 - 90 44 34 40 49 52 51 42 35 44 38
 18x 19x 19x 20x 22x 22x 22x 22x 22x 22x 22x
 91 - 100 48 39 49 37 45 41 59 48 39 42
 23x 23x 23x 23x 23x 23x 23x 23x 23x 23x 23x
 101 - 110 48 23 40 41 44 48 37 46 36 32
 23x 23x 23x 23x 22x 22x 21x 21x 19x 17x 17x
 111 - 120 34 37 45 38 33 33 28 31 21 28
 17x 16x 15x 15x 15x 15x 13x 13x 12x 12x 12x
 121 - 130 33 33 35 32 36 44 31 32 44 73
 11x 11x 10x 10x 8x 7x 3x 3x 2x 1x 1x
 131 - 140 72 68 70 67 61 70 52 42 59 61
 1x 1x 1x 1x 1x 1x 1x 1x 1x 1x 1x
 141 - 144 46 46 61 51
 1x 1x 1x 1x

(edited: 20181107)

No. 88591.0 undated conifera 67 values

GR/MARMORERA-COTSCHENS MO

18203.1109.1

1 -	10	6	9	11	11	11	8	11	9	9	11
11 -	20	9	11	11	11	11	13	6	6	6	7
21 -	30	15	13	18	10	9	10	10	11	9	13
31 -	40	13	15	9	14	13	15	6	11	9	15
41 -	50	6	13	20	11	11	6	12	11	13	8
51 -	60	6	4	11	4	9	11	6	11	9	6
61 -	67	10	5	4	6	4	6	6			

(edited: 20181208)

No. 88592.0 undated conifera 50 values

GR/MARMORERA-COTSCHENS MO

18203.1109.2

1 -	10	32	29	21	33	27	38	26	33	34	36
11 -	20	22	39	20	31	18	25	29	32	22	20
21 -	30	26	19	19	33	26	25	25	29	25	20
31 -	40	16	15	26	25	29	19	20	18	20	15
41 -	50	22	18	17	8	23	18	19	19	20	25

(edited: 20181208)

No. 88593.0 Date: -1137 b conifera 50 values

GR/MARMORERA-COTSCHENS MO

18203.1109.3

1 -	10	30	37	36	41	81	62	61	38	41	29
11 -	20	28	24	44	48	31	29	48	19	37	30
21 -	30	27	45	36	14	35	16	27	23	16	25
31 -	40	44	48	33	37	34	37	31	20	23	8
41 -	50	33	23	37	34	29	47	67	50	33	31

(edited: 20181208)

No. 88594.0 undated conifera 41 values

GR/MARMORERA-COTSCHENS MO

18203.1109.4

1 -	10	22	27	27	27	13	36	22	8	16	29
11 -	20	25	36	47	35	30	24	38	34	30	11
21 -	30	28	27	30	26	53	51	26	23	19	24
31 -	40	22	25	22	49	49	34	25	24	20	16
41 -	41	22									

(edited: 20181208)

No. 88595.0 undated conifera 44 values

GR/MARMORERA-COTSCHENS MO

18203.1109.5

1 -	10	23	15	19	19	20	19	9	19	16	20
11 -	20	22	22	26	19	23	18	22	14	24	9
21 -	30	13	19	19	23	29	27	22	16	18	23
31 -	40	27	25	25	16	25	19	22	25	19	22
41 -	44	15	22	26	22						

(edited: 20181208)

No. 88596.0 Date: -1131 b conifera 43 values

GR/MARMORERA-COTSCHENS MO

18203.1109.6

1 -	10	34	36	37	49	16	40	24	29	45	48
11 -	20	11	40	20	27	31	18	29	47	54	41
21 -	30	27	35	34	22	25	27	8	29	26	40
31 -	40	34	32	49	64	47	32	34	51	29	22
41 -	43	38	13	34							

(edited: 20181208)

No. 88597.0 undated conifera 46 values
GR/MARMORERA-COTSCHENS MO
18203.1109.7

1 - 10 35 37 47 37 37 45 31 30 32 38
11 - 20 43 27 27 23 9 15 9 8 4 6
21 - 30 6 4 8 9 8 5 9 8 9 11
31 - 40 13 10 14 13 19 13 19 22 22 13
41 - 46 8 9 6 9 11 10

(edited: 20181208)

No. 88598.0 undated conifera 55 values
GR/MARMORERA-COTSCHENS MO
18203.1109.8

1 - 10 9 13 8 16 9 9 10 8 12 12
11 - 20 11 12 16 23 15 23 18 8 9 9
21 - 30 16 15 13 18 12 12 11 10 14 13
31 - 40 15 21 20 25 23 23 26 27 25 25
41 - 50 35 33 22 18 16 16 19 13 12 11
51 - 55 15 16 20 24 11

(edited: 20181208)

No. 88581.0 Date: -67 b conifera 88 values Mark
GR/MARMORERA-COTSCHENS MO
67457.22.1

1 - 10 474 194 228 312 319 271 257 260 286 260
11 - 20 216 221 186 194 152 221 224 190 190 219
21 - 30 169 241 136 138 103 81 101 91 120 108
31 - 40 175 150 162 120 131 120 142 107 152 117
41 - 50 188 162 111 57 91 76 68 93 91 78
51 - 60 95 86 97 116 94 109 111 125 115 97
61 - 70 93 90 88 119 95 102 111 87 86 97
71 - 80 80 107 88 93 117 107 75 59 45 54
81 - 88 59 66 40 51 31 31 40 34

(edited: 20181208)

No. 88582.0 undated conifera 38 values
GR/MARMORERA-COTSCHENS MO
67457.28.1

1 - 10 182 319 267 260 252 238 243 207 225 191
11 - 20 312 265 226 220 134 119 161 158 164 166
21 - 30 162 210 151 181 112 148 140 127 170 140
31 - 38 144 143 114 193 124 117 150 149

(edited: 20181208)

No. 88583.0 undated conifera 45 values
GR/MARMORERA-COTSCHENS MO
67457.38.1

1 - 10 126 98 126 109 103 143 134 104 115 91
11 - 20 139 127 134 134 109 98 65 114 120 129
21 - 30 123 119 103 117 85 94 82 85 133 121
31 - 40 137 161 142 163 164 160 88 103 109 85
41 - 45 117 109 82 102 98

(edited: 20181208)

No. 88584.0 undated conifera 38 values

GR/MARMORERA-COTSCHENS MO

67457.46.1

1 - 10 182 319 267 260 252 238 243 207 225 191
 11 - 20 312 265 226 220 134 119 161 158 164 166
 21 - 30 162 210 151 181 112 148 140 127 170 140
 31 - 38 144 143 114 193 124 117 150 149

(edited: 20181208)

No. 88585.0 undated conifera 25 values

GR/MARMORERA-COTSCHENS MO

67457.100.1

1 - 10 91 100 94 59 120 55 51 84 51 63
 11 - 20 72 72 81 59 63 45 61 52 65 66
 21 - 25 81 55 72 95 91

(edited: 20181208)

No. 88586.0 undated conifera 22 values

GR/MARMORERA-COTSCHENS MO

67457.100.2

1 - 10 84 63 81 55 83 87 62 68 52 47
 11 - 20 47 41 50 56 45 62 76 66 62 84
 21 - 22 101 84

(edited: 20181208)

No. 88587.0 undated conifera 20 values

GR/MARMORERA-COTSCHENS MO

67457.100.3

1 - 10 58 74 81 72 66 44 54 43 38 48
 11 - 20 47 48 55 76 70 62 78 92 87 50

(edited: 20181208)

No. 88588.0 undated conifera 35 values

GR/MARMORERA-COTSCHENS MO

67457.101

1 - 10 55 44 44 40 48 27 28 29 36 23
 11 - 20 16 27 33 30 22 21 24 22 22 25
 21 - 30 30 24 25 27 38 33 30 27 27 13
 31 - 35 29 51 45 59 48

(edited: 20181208)

No. 88589.0 undated conifera 73 values

GR/MARMORERA-COTSCHENS MO

67457.103

1 - 10 84 86 119 74 91 105 100 111 137 116
 11 - 20 91 166 104 89 82 134 71 79 109 79
 21 - 30 79 86 85 91 60 108 87 71 27 45
 31 - 40 30 23 28 26 25 14 33 34 29 28
 41 - 50 37 27 50 39 30 25 42 57 61 57
 51 - 60 33 47 60 107 71 73 79 79 57 112
 61 - 70 61 36 52 45 22 22 50 65 65 54
 71 - 73 57 49 52

(edited: 20181208)

No. 88590.0 undated conifera 18 values

GR/MARMORERA-COTSCHENS MO

67457.125

1 - 10 63 58 52 63 45 72 64 38 70 56
 11 - 18 62 58 62 35 41 51 55 51

(edited: 20181208)

No. 88845.0 undated conifera 70 values
 GR/MARMORERA-COTSCHENS MO
 67457.14.1, 67457.15.1, 67457.23.1

1 -	10	79	89	99	137	106	98	80	100	129	119
11 -	20	96	101	49	63	73	62	37	34	30	36
21 -	30	26	36	33	32	43	43	47	46	49	51
31 -	40	48	61	61	56	41	41	51	53	54	74
41 -	50	40	34	40	42	50	45	42	46	39	33
51 -	60	35	38	29	37	40	61	56	61	76	92
61 -	70	77	49	51	52	58	56	57	46	59	38

(edited: 20181208)

No. 5095.0 Date: -1131 B conifera 56 values
 +MK: GR/MARMORERA-COTSCHENS MO
 1186-1131 BC

1 -	10	30	37	36	41	81	62	61	38	41	29
		1x	1x	1x	1x	1x	1x	1x	1x	1x	1x
11 -	20	28	24	44	41	33	33	48	17	38	27
		1x	1x	1x	2x	2x	2x	2x	2x	2x	2x
21 -	30	28	45	42	12	37	18	27	27	17	27
		2x	2x	2x	2x	2x	2x	2x	2x	2x	2x
31 -	40	45	51	37	32	34	35	26	22	25	8
		2x	2x	2x	2x	2x	2x	2x	2x	2x	2x
41 -	50	31	24	38	34	30	48	65	48	32	32
		2x	2x	2x	2x	2x	2x	2x	2x	2x	2x
51 -	56	51	29	22	38	13	34				
		1x	1x	1x	1x	1x	1x				

(edited: 20181128)