**Appendix 2: Results obtained with equal Historical and Recent sample sizes (N=6) in the Eastern study area.** Analysis was run with six individuals randomly selected from the original *Recent* population of the *Eastern* study area**.** The process was repeated ten times, with replacement. Results are given for the overall trend in δ13C and δ15N values during the study period (β and R2). Results are expressed for each study area for the ellipse overlap between the *Historical* and *Recent* populations and for the posterior probability of *Historical*’s SEAB being larger than *Recent*’s SEAB (PP*H>R*).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Resampling | **δ13C trend** | **δ15N trend** | **Overlap (%)** | **PP*H>R*** |
| β | R2 | β | R2 | Eastern | Northern | Finland | Eastern | Northern | Finland |
| 1 | 0.018 | 0.66 | 0.0011 | 0.0032 | 17 | 24 | 27 | 0.21 | 0.39 | 0.28 |
| 2 | 0.017 | 0.66 | 0.00017 | 7.10E-05 | 17 | 24 | 27 | 0.23 | 0.4 | 0.34 |
| 3 | 0.016 | 0.66 | 0.00026 | 0.00017 | 15 | 24 | 26 | 0.17 | 0.42 | 0.25 |
| 4 | 0.016 | 0.063 | 0.0016 | 0.0079 | 23 | 24 | 35 | 0.31 | 0.4 | 0.34 |
| 5 | 0.016 | 0.65 | 0.0024 | 0.018 | 20 | 24 | 32 | 0.11 | 0.39 | 0.22 |
| 6 | 0.015 | 0.51 | 0.0023 | 0.01 | 17 | 24 | 35 | 0.82 | 0.4 | 0.88 |
| 7 | 0.014 | 0.53 | 0.0015 | 0.0048 | 6 | 24 | 38 | 0.45 | 0.38 | 0.73 |
| 8 | 0.014 | 0.48 | 6.20E-05 | 9.00E-06 | 22 | 24 | 32 | 0.65 | 0.4 | 0.65 |
| 9 | 0.014 | 0.48 | 0.00016 | 8.20E-05 | 18 | 24 | 41 | 0.8 | 0.39 | 0.81 |
| 10 | 0.014 | 0.46 | 0.0031 | 0.016 | 3 | 24 | 36 | 0.65 | 0.4 | 0.9 |
| **Mean** | **0.0154** | **0.5153** | **0.001284** | **0.006023** | **15.8** | **24** | **32.9** | **0.44** | **0.397** | **0.54** |