**Appendix C –** Point scales used to score papers for accuracy, precision, and calibration

**Accuracy Point Scale**

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| **#** | **Description** | **Example Statement** |
| 0 | No information provided | − |
| 1 | Accuracy monitored with internal or check standards but no further details provided | Analytical accuracy was monitored using in-house standard reference materials. |
| 2 | Accuracy monitored with named internal standard reference materials (SRMs) | Analytical accuracy was monitored using an internal bovine liver standard.  |
| 3 | Accuracy monitored with named SRMs, *δ*values given for checks if internal  | Analytical accuracy was monitored using an internal bovine liver standard that had long-term average *δ*13C and *δ*15N values of −21.04 and +7.5, respectively. |
| 3 | Accuracy monitored with named SRMs, *δ* values for runs are given, but known values are not | Analytical accuracy was monitored using an internal bovine liver standard, with *δ*13C and *δ*15N values of −21.14 and +7.4 ‰ (*n*=14), respectively.  |
| 3 | Accuracy monitored with international SRMs | Analytical accuracy was monitored using IAEA-CH-7.*Note that while it would be convenient if the δ values were provided, if the international SRMs are named, these values can be easily checked. This comment applies throughout this table.* |
| 3 | Accuracy monitored with named in-house standards, ± on measurement given but accepted values and precision not | Accuracy for *δ*13C was ±0.2 ‰ based on repeated analysis of an internal bovine liver standard.  |
| 4 | Accuracy monitored with named SRMs, *δ* values are given, average values for check standards associated with runs in paper provided | Analytical accuracy was monitored using an internal bovine liver standard that had average *δ*13C and *δ*15N values of −13.06±0.09 and +7.5±0.1 ‰ (*n*=36), respectively, which compared well with its long term average values of −13.04±0.05 and +7.4±0.1 ‰. Alternatively, additional details could be provided as detailed in Table Y.  |

**Calibration Point Scale**

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| **#** | **Description** | **Example Statement** |
| 0 | No information provided | − |
| 1 | Data calibrated with internal (or non-specific) reference materials but no details | Carbon isotopic compositions were calibrated relative to VPDB using in-house reference materials.  |
| 1 | Data calibrated with internal SRMs, and SRMs used to calibrate are specified. One point. No values given. | Carbon isotopic compositions were calibrated relative to VPDB using an internal keratin standard.  |
| 1 | Reference gases were calibrated with one international SRM and subsequently monitored | Reference gases were normalized relative to VPDB and AIR with USGS40 and subsequently monitored with regular analysis of an internal (or international) standard.  |
| 1 | Numerous standards are listed, unclear which are calibration standards and which are checks.  | Samples were run with international standards (USGS24, USGS40, USGS35, IAEA-N-1, IAEA-N-2, IAEA-600), which yielded standard deviations of ±0.10 for *δ*13C and ±0.18 for *δ*15N.  |
| 2 | Reference gases were calibrated with two international SRMs and subsequently monitored | Reference gases were normalized relative to VPDB and AIR with USGS 40 and USGS 41 and subsequently monitored with regular analysis of an internal (or international) standard.  |
| 2 | Data calibrated with international SRMs (irrespective of number), but not clear if this is specific to data presented in paper or one time calibration of ref gas.  | Values were calibrated to international standards IAEA CH 7 and IAEA N 2.  |
| 2 | Data calibrated with internal SRMs, SRMs used to calibrate are not specified and values are not given. One point.  | Carbon isotopic compositions were calibrated relative to VPDB using an internal keratin standard.  |
| 3 | Data calibrated with internal SRM, SRM used to calibrate is specified and value given. One point.  | Carbon isotopic compositions were calibrated relative to VPDB using an internal keratin standard (long-term average *δ*13C −22.1±0.10 ‰).  |
| 3 | Data calibrated with internal SRMs, and SRMs used to calibrate are specified but values are not given. Two point.  | Carbon isotopic compositions were calibrated relative to VPDB using internal keratin and glucose standards.  |
| 4 | Data calibrated with internal SRMs, *δ* values are given for those SRMs. Two point.  | Carbon isotopic compositions were calibrated relative to VPDB using internal keratin (long-term average *δ*13C −24.33±0.06 ‰) and sucrose standards (long-term average *δ*13C −10.58±0.07 ‰).  |
| 4 | Data calibrated with international SRMs, standards specified. Calibration clearly linked to data in paper and not one-time ref gas calibration. | Carbon isotopic compositions were calibrated relative to VPDB using IAEA-CH-7.  |
| 5 | Data calibrated with international standards, 2 point calibration used. Calibration clearly linked to data in paper and not one-time ref gas calibration. | Carbon isotopic compositions were calibrated relative to VPDB using IAEA-CH-7 and IAEA-CH-6.  |
| 6 | Data calibrated with international standards, 2 point calibration used, all information on standards (number used in runs, ± on means for runs) provided. Calibration clearly linked to data in paper and not one-time ref gas calibration. | Carbon isotopic compositions were calibrated relative to VPDB using IAEA-CH-7 (*δ*13C −32.151±0.050) and IAEA-CH-6 (*δ*13C −10.449±0.033). Additional information provided as in Table X.  |

**Precision Point Scale**

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| **#** | **Description** | **Example Statement** |
| 0 | No information provided | − |
| 1 | Accuracy/precision/error mentioned, nothing specific | Analytical precision was monitored.  |
| 2 | A/P/E monitored, some values listed but unclear how determined  | Error on the measurements is ±0.2 for *δ*13C and ±0.3 for *δ*15N. |
| 3 | A/P/E is a long-term lab uncertainty, but unclear how precisely determined | Long-term laboratory error on *δ*13C and *δ*15N measurements is ±0.1 and ±0.2, respectively. |
| 3 | A/P/E/ is numerically stated and linked to non-specific reference materials. Unclear whether long-term or run-specific.  | Measurement error on *δ*13C and *δ*15N measurements is ±0.1 and ±0.2 based on repeated analysis of an internal standard. |
| 3 | A/P/E is a long-term lab uncertainty linked to sample replicates or checks, but no specific details provided. Alternatively, check SRMs could be listed, as well as a state measurement error, but no clear link between the two.  | Long-term laboratory error on *δ*13C and *δ*15N values was monitored by repeated measurements of an internal bovine liver standard.All samples were analyzed in duplicate to monitor analytical error.  |
| 4 | A/P/E is specific to runs in paper because it is linked specifically to duplicates, but unclear what the reported value represents | All samples were analyzed in duplicate and analytical error was ±0.2 ‰. |
| 4 | A/P/E is specific to runs in paper, but unclear how determined | Error on *δ*13C and *δ*15N measurements during analytical runs presented in this work were ±0.1 and ±0.2 ‰, respectively. |
| 4 | A/P/E is a long-term lab uncertainty linked to sample replicates or checks and is clearly defined | Long-term error on *δ*13C and *δ*15N measurements is ±0.2 and ±0.3 ‰ based on repeated measurements of an internal bovine liver standard.Long-term error on *δ*13C and *δ*15N measurements is ±0.2 and ±0.3 ‰ based on replicate samples. |
| 5 | Standard deviations for SRMs are given, but unclear how many samples were run, if these values are averages or averages. The reported uncertainties are clearly linked to standards, but not clear exactly how they were calculated.  | Standard reference materials (IAEA-CH-7, IAEA-CH-6, USGS24, IAEA-N-1, IAEA-N-2, USGS40) produced standard deviations of ±0.15 for *δ*13C and ±0.22 for *δ*15N.  |
| 5 | Standard deviations for SRMs are given, unclear how many samples were run. Standard is named, but number of measurements of the standard is not given.  | Analytical error over the period of analysis was ±0.1 for *δ*13C and ±0.2 for *δ*15N based on multiple analyses of an internal gelatin standard.  |
| 6 | A/P/E is specific to data in paper and linked specifically to either duplicates OR checks, values are given for precision on particular standards, average difference of duplicate sample pairs, or both | Analytical uncertainty on *δ*13C and *δ*15N measurements was ±0.12 and ±0.2 ‰ based on 46 measurements of an internal bovine liver standard interspersed within the analytical runs.All samples were analyzed in duplicate. The mean difference between duplicate pairs was 0.13 ‰ for *δ*13C and 0.2 ‰ for *δ*15N (*n*=115).  |
| 7 | Accuracy and precision are clearly differentiated, precision is linked specifically duplicates AND checks, values are given for precision of particular standards, average difference of duplicate sample pairs | Analytical precision was monitored by repeated measurements of internal bovine liver (long-term average *δ*13C = −13.04±0.05 and *δ*15N = +7.4±0.1) and glutamine (long-term average *δ*13C = −23.74±0.06 and *δ*15N = +2.4±0.1). Additional information provided as in Table Y. |