$\delta^{13} \mathrm{C}$-2008. Isotope values did not change through time, and were similar to adjusted feathers during the final capture session (bold).

| Day | $11-25$ | $51-56$ | $118-119$ | Adjusted feathers |
| :--- | :--- | :--- | :--- | :--- |
| $0-4$ | $t_{38}=0.61, P=0.547$ | $t_{49}=1.11, P=0.272$ | $t_{28}=0.101, P=0.920$ | $t_{33}=-0.771, P=0.446$ |
|  | $W=205, P=0.407$ | $W=382, P=0.281$ | $W=42, P=0.948$ | $W=99, P=0.743$ |
| $11-25$ |  | $t_{35}=0.308, P=0.760$ | $t_{14}=-0.311, P=0.761$ | $t_{19}=-1.767, P=0.093$ |
|  | $W=157, P=0.988$ | $W=17, P=0.800$ | $W=32, P=0.161$ |  |
| $51-56$ |  |  | $t_{25}=-0.802, P=0.430$ | $t_{30}=-3.405, P=0.002$ |
| $118-119$ |  |  | $W=30, P=0.699$ | $W=33, P=0.006$ |
|  |  |  |  | $\boldsymbol{t} \boldsymbol{t}=\mathbf{- 1 . 6 7 2 , P}=\mathbf{0 . 1 2 9}$ |

$\delta^{13} \mathrm{C}$-2009. Isotope values did not generally change through time, and were similar to adjusted feathers during the final capture session (bold).

| Day | 12-16 | 39-44 | 69-70 | 103-104 | 122-124 | Adjusted feathers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-2 | $\begin{aligned} & t_{43}=-0.035, P=0.972 \\ & W=144, P=0.906 \end{aligned}$ | $\begin{aligned} & t_{36}=-0.034, P=0.973 \\ & W=114, P=0.830 \end{aligned}$ | $\begin{aligned} & t_{12}=-0.619, P=0.547 \\ & W=15, P=0.282 \end{aligned}$ | $\begin{aligned} & t_{8}=0.629, P=0.547 \\ & W=9, P=0.889 \end{aligned}$ | $\begin{aligned} & t_{13}=-2.887, P=0.017 \\ & W=7, P=0.014 \end{aligned}$ | $\begin{aligned} & t_{14}=-2.666, P=0.018 \\ & W=9, P=0.015 \end{aligned}$ |
| 12-16 |  | $\begin{aligned} & t_{65}=0.014, P=0.989 \\ & W=545, P=0.900 \end{aligned}$ | $\begin{aligned} & t_{41}=-0.419, P=0.677 \\ & W=85, P=0.353 \end{aligned}$ | $\begin{aligned} t_{37} & =0.659, P=0.514 \\ W & =43, P=0.702 \end{aligned}$ | $\begin{aligned} & t_{42}=-2.042, P=0.048 \\ & W=56, P=0.018 \end{aligned}$ | $\begin{aligned} & t_{43}=-2.337, P=0.024 \\ & W=61, P=0.010 \end{aligned}$ |
| 39-44 |  |  | $\begin{aligned} & t_{34}=-0.563, P=0.577 \\ & W=80, P=0.671 \end{aligned}$ | $\begin{aligned} & t_{30}=0.818, P=0.419 \\ & W=31, P=0.938 \end{aligned}$ | $\begin{aligned} & t_{35}=-2.708, P=0.010 \\ & W=34, P=0.006 \end{aligned}$ | $\begin{aligned} & t_{36}=-2.992, P=0.005 \\ & W=45, P=0.007 \end{aligned}$ |
| 69-70 |  |  |  | $\begin{aligned} & t_{6}=0.965, P=0.372 \\ & W=6, P=0.999 \end{aligned}$ | $\begin{aligned} & t_{11}=-5.65, P=<0.001 \\ & W=0, P=0.001 \end{aligned}$ | $\begin{aligned} & t_{12}=-2.651, P=0.021 \\ & W=5, P=0.013 \end{aligned}$ |
| 103-104 |  |  |  |  | $\begin{aligned} & t_{7}=-2.047, P=0.081 \\ & W=6, P=0.889 \end{aligned}$ | $\begin{aligned} & t_{8}=-1.886, P=0.091 \\ & W=5, P=0.533 \end{aligned}$ |
| 122-124 |  |  |  |  |  | $\begin{aligned} & t_{13}=-\mathbf{0 . 3 4 4 , P}, P .736 \\ & W=31, P=0.779 \end{aligned}$ |

$\delta^{15} \mathrm{~N}$-2008. Isotope values were similar during the first capture session (italics); different during subsequent capture sessions; and similar to adjusted feathers during the final capture session (bold).

| Day | $11-25$ | $51-56$ | $118-119$ | Adjusted feathers |
| :--- | :--- | :--- | :--- | :--- |
| $0-4$ | $t_{38}=-0.317, P=0.753$ | $t_{49}=3.55, P=<0.001$ |  | $t_{33}=5.323, P=<0.001$ |
|  | $W=164, P=0.754$ | $W=484, P=0.003$ | $W=81, P=<0.001$ | $W=215, P=<0.001$ |
| $11-25$ |  | $t_{35}=4.38, P=<0.001$ | $t_{14}=4.943, P=<0.001$ | $t_{19}=7.190, P=<0.001$ |
| $51-56$ |  | $W=263, P=0<001$ | $W=39, P=0.0 .004$ | $W=104, P=<0.001$ |
| $118-119$ |  |  | $t_{25}=4.25, P=<0.001$ | $t_{30}=5.774, P=<0.001$ |
|  |  |  | $W=72, P=0.034$ | $W=191, P=<0.001$ |
|  |  |  | $\boldsymbol{t} \boldsymbol{t}=\mathbf{0 . 6 4 5}, \boldsymbol{P}=\mathbf{0 . 5 3 5}$ |  |

$\delta^{15} \mathrm{~N}$-2009. Isotope values were similar during the first capture session (italics); different during subsequent capture sessions; and similar to adjusted feathers during the final capture sessions (bold).

| Day | 12-16 | 39-44 | 69-70 | 103-104 | 122-124 | Adjusted feathers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-2 | $\begin{aligned} & t_{43}=0.256, P=0.799 \\ & W=172, P=0.493 \end{aligned}$ | $\begin{aligned} & t_{36}=4.284, P=<0.001 \\ & W=208, P=0.002 \end{aligned}$ | $\begin{aligned} & t_{12}=5.466, P=<0.001 \\ & W=47, P=0.001 \end{aligned}$ | $\begin{aligned} & t_{8}=4.079, P=0.004 \\ & W=16, P=0.044 \end{aligned}$ | $\begin{aligned} & t_{13}=8.319, P=<0.001 \\ & W=56, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{14}=9.147, P=<0.001 \\ & W=64, P=<0.001 \end{aligned}$ |
| 12-16 |  | $\begin{aligned} & t_{65}=4.17, P=<0.001 \\ & W=871, P=<0.001 \end{aligned}$ | $\begin{aligned} t_{41} & =3.719, P=<0.001 \\ W & =210, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{37}=2.718, P=0.009 \\ & W=73, P=0.005 \end{aligned}$ | $\begin{aligned} & t_{42}=5.732, P=<0.001 \\ & W=257, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{43}=6.898, P=<0.001 \\ & W=295, P=<0.001 \end{aligned}$ |
| 39-44 |  |  | $\begin{aligned} & t_{34}=3.189, P=0.003 \\ & W=162, P=0.001 \end{aligned}$ | $\begin{aligned} & t_{30}=2.969, P=0.006 \\ & W=60, P=0.004 \end{aligned}$ | $\begin{aligned} & t_{35}=6.663, P=<0.001 \\ & W=210, P=0 .<0.001 \end{aligned}$ | $\begin{aligned} & t_{36}=8.311, P=<0.001 \\ & W=240, P=<0.001 \end{aligned}$ |
| 69-70 |  |  |  | $\begin{aligned} & t_{6}=1.41, P=0.208 \\ & W=10, P=0.289 \end{aligned}$ | $\begin{aligned} & t_{11}=3.540, P=0.004 \\ & W=39, P=0.008 \end{aligned}$ | $\begin{aligned} & t_{12}=4.304, P=0.001 \\ & W=48, P=<0.001 \end{aligned}$ |
| 103-104 |  |  |  |  | $\begin{aligned} & t_{7}=0.987, P=0.357 \\ & W=10, P=0.500 \end{aligned}$ | $\begin{aligned} & t_{8}=1.603, P=0.148 \\ & W=15, P=0.089 \end{aligned}$ |
| 122-124 |  |  |  |  |  | $\begin{aligned} & t_{13}=1.473, P=0.165 \\ & W=41, P=0.148 \end{aligned}$ |

$\delta^{2} \mathrm{H}$-2009. Isotope values were similar during the first capture session (italics), and were different during subsequent capture sessions and adjusted feathers.

| Day | 12-16 | 39-44 | 69-70 | 103-104 | 122-124 | Adjusted feathers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-2 | $\begin{aligned} & t_{32}=0.289, P=0.774 \\ & W=92, P=0.915 \end{aligned}$ | $\begin{aligned} t_{41} & =4.405, P=<0.001 \\ W & =222, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{11}=3.474, P=0.005 \\ & W=41, P=0.002 \end{aligned}$ | $\begin{aligned} & t_{12}=5.321, P=<0.001 \\ & W=49, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{13}=5.585, P=<0.001 \\ & W=56, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{10}=5.744, P=<0.001 \\ & W=35, P=0.002 \end{aligned}$ |
| 12-16 |  | $\begin{aligned} & t_{61}=5.89, P=<0.001 \\ & W=836, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{31}=3.72, P=<0.001 \\ & W=152, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{31}=3.72, P=<0.001 \\ & W=152, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{32}=5.786, P=<0.001 \\ & W=189, P=<0.001 \end{aligned}$ | $\begin{gathered} t_{30}=6.178, P=<0.001 \\ W=135, P=<0.001 \end{gathered}$ |
| 39-44 |  |  | $\begin{aligned} & t_{40}=1.180, P=0.245 \\ & W=136, P=0.323 \end{aligned}$ | $\begin{aligned} & t_{41}=3.892, P=<0.001 \\ & W=236, P=<0.001 \end{aligned}$ | $\begin{aligned} & t_{42}=3.959, P=<0.001 \\ & W=266, P=<0.001 \end{aligned}$ | $\begin{aligned} t_{39} & =5.213, P=<0.001 \\ W & =180, P=<0.001 \end{aligned}$ |
| 69-70 |  |  |  | $\begin{aligned} & t_{11}=2.989, P=0.012 \\ & W=39, P=0.008 \end{aligned}$ | $\begin{aligned} & t_{12}=2.943, P=0.012 \\ & W=43, P=0.017 \end{aligned}$ | $\begin{aligned} & t_{9}=5.912, P=<0.001 \\ & W=30, P=0.004 \end{aligned}$ |
| 103-104 |  |  |  |  | $\begin{aligned} & t_{13}=-0.247, P=0.809 \\ & W=26, P=0.867 \end{aligned}$ | $\begin{aligned} & t_{10}=3.019, P=0.013 \\ & W=31, P=0.030 \end{aligned}$ |
| 122-124 |  |  |  |  |  | $\begin{aligned} & t_{11}=3.432, P=0.006 \\ & W=37, P=0.011 \end{aligned}$ |

