Table S1.

Conceptual age adjustment table for a fictional individual ABFT hatched in June 2020 and caught 3.6 yearslater, showing (1) the progression of monthly and yearly (decimal) age and (2) the zone count or age that the sample should be assigned during each month of its life based on the various age adjustment tables. Line 3 shows the zone count converted to an adjusted age based on the completion of the opaque zone formation, line 4 the adjusted biological age and line 5 the adjusted calendar year. Lines 8 through to 10 relate to the adjustment criteria used for each combination of zone count and edge type for a given month of life and the resultant zone count to age based on the edge type conversion method. Bracketed numbers in edge adjustment rows (NT, WT & O) = number of completed opaque zones counted, plus or minus correction based on edge type and the capture month. O = opaque, T = Translucent, NT = Narrow Translucent, WT = Wide Translucent.

**YEAR 1**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Spawning Season | | | | | | | | O |
| | | | | | | | Start opaque zone formation | | | | → | End | | T |
| Line | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| 1 | Age (months) | - | - | - | - | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 2 | Age (years) | - | - | - | - | 0 | 0.08 | 0.17 | 0.25 | 0.33 | 0.42 | 0.50 | 0.58 | |
| 3 | Adjusted zone count age (30th Nov) | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 4 | Age(Biological - 1st Jun) | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 5 | Age(Calendar - 1st Jan) | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 6 | Opaque zone formation (GAM) | | | | | | | | | | | | | |
| 7 | annulus count | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 11 | Year Class | - | - | - | - | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | |

**YEAR 2**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Spawning Season | | | | | | | | O |
| | | | | | | | Start opaque zone formation | | | | → | End | | T |
| Line | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| 1 | Age (months) | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | |
| 2 | Age (years) | 0.67 | 0.75 | 0.83 | 0.92 | 1.00 | 1.08 | 1.17 | 1.25 | 1.33 | 1.42 | 1.50 | 1.58 | |
| 3 | Adjusted zone count age (30th Nov) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 4 | Age(Biological - 1st Jun) | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 5 | Age(Calendar - 1st Jan) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 6 | Opaque zone formation (GAM) | | | | | | | | | | | | | |
| 7 | Annulus count | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 8 | Edge adjustment (NT) | 0 | 0 | 0 | 0 | 0 | 0(1-1) | 0(1-1) | 0(1-1) | 0(1-1) | 0(1-1) | 0(1-1) | 1 | |
| 9 | Edge adjustment (WT) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 10 | Edge adjustment (O) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (0+1) | |
| 11 | Year Class | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | |

Table S1. Continued

**YEAR 3**

Spawning Season

Start opaque zone formation → End

O

T

| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Age (months) | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| 2 | Age (years) | 1.67 | 1.75 | 1.83 | 1.92 | 2.00 | 2.08 | 2.17 | 2.25 | 2.33 | 2.42 | 2.50 | 2.58 |
| 3 | Adjusted zone count age (30th Nov) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 4 | Age(Biological - 1st Jun) | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 5 | Age(Calendar - 1st Jan) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 6 | Opaque zone formation (GAM) | | | | | | | | | | | | |
| 7 | Annulus count | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 8 | Edge adjustment (NT) | 1 | 1 | 1 | 1 | 1 | 1(2-1) | 1(2-1) | 1(2-1) | 1(2-1) | 1(2-1) | 1(2-1) | 2 |
| 9 | Edge adjustment (WT) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 10 | Edge adjustment (O) | 1(0+1) | 1(0+1) | 1(0+1) | 1(0+1) | 1(0+1) | 1 | 1 | 1 | 1 | 1 | 1 | 2(1+1) |
| 11 | Year Class | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 |

**YEAR 4**

Spawning Season

Start opaque zone formation → End

O

T

| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Age (months) | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 |
| 2 | Age (years) | 2.67 | 2.75 | 2.83 | 2.92 | 3.00 | 3.08 | 3.17 | 3.25 | 3.33 | 3.42 | 3.50 | 3.58 |
| 3 | Adjusted zone count age (30th Nov) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| 4 | Age(Biological - 1st Jun) | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 5 | Age(Calendar - 1st Jan) | 3(2+1) | 3(2+1) | 3(2+1) | 3(2+1) | 3(2+1) | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 6 | Opaque zone formation (GAM) | | | | | | | | | | | | |
| 7 | Annulus count | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| 8 | Edge adjustment (NT) | 2 | 2 | 2 | 2 | 2 | 2(3-1) | 2(3-1) | 2(3-1) | 2(3-1) | 2(3-1) | 2(3-1) | 3 |
| 9 | Edge adjustment (WT) | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| 10 | Edge adjustment (O) | 2(1+1) | 2(1+1) | 2(1+1) | 2(1+1) | 2(1+1) | 2 | 2 | 2 | 2 | 2 | 2 | 3(2+1) |
| 11 | Year Class | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 | 2020 |