

Table S1–Number of individuals (*n*) and mean values (\pm standard deviations) of total length (TL), $\delta^{13}\text{C}$, $\delta^{34}\text{S}$ and $\delta^{15}\text{N}$ values for scalloped hammerhead, smooth hammerhead and Pacific sharpnose sharks presented by tissue, sex and sampling month (in italic, except for smooth hammerhead sharks all sampled in November). Upper case letters indicate significant differences in isotopic values between sex or sampling month (description of the tests and their results are listed below).

Species	<i>n</i>	Sex	TL (cm)	Muscle (‰)			Blood (‰)		
		Month		$\delta^{13}\text{C}$	$\delta^{34}\text{S}$	$\delta^{15}\text{N}$	$\delta^{13}\text{C}$	$\delta^{34}\text{S}$	$\delta^{15}\text{N}$
Scalloped hammerhead	10	F	92 (± 20)	-14.43 (± 0.42)	17.58 (± 0.38)	22.16 (± 0.40)	-14.52 (± 0.43)	20.23 (± 0.62)	21.14 (± 0.39) ^A
	10	M	103 (± 23)	-14.76 (± 0.41)	17.46 (± 0.42)	22.27 (± 0.48)	-14.65 (± 0.30)	20.70 (± 1.06)	20.76 (± 0.35) ^B
	9	<i>March</i>	108 (± 25)	-14.82 (± 0.36) ^B	17.43 (± 0.35)	22.05 (± 0.38)	-14.72 (± 0.33)	20.59 (± 1.03)	20.80 (± 0.42)
	11	<i>December</i>	89 (± 15)	-14.41 (± 0.42) ^A	17.60 (± 0.43)	22.35 (± 0.44)	-14.47 (± 0.38)	20.37 (± 0.77)	21.07 (± 0.37)
Smooth hammerhead	4	F	130 (± 4)	-15.36 (± 0.23)	19.06 (± 0.08)	21.96 (± 0.11)	-15.15 (± 0.26)	21.76 (± 0.46)	20.75 (± 0.28)
	15	M	126 (± 12)	-15.25 (± 0.26)	18.85 (± 0.68)	21.74 (± 0.50)	-15.24 (± 0.30)	21.74 (± 0.85)	20.54 (± 0.39)
Pacific sharpnose	10	F	111 (± 10)	-14.76 (± 0.43) ^A	18.18 (± 0.31)	21.63 (± 0.52) ^B	-14.22 (± 0.50) ^A	22.24 (± 2.91)	21.33 (± 0.67)
	10	M	100 (± 4)	-15.13 (± 0.33) ^B	18.06 (± 1.08)	22.37 (± 0.20) ^A	-14.78 (± 0.49) ^B	21.74 (± 1.72)	21.42 (± 0.64)
	9	<i>March</i>	112 (± 9)	-14.72 (± 0.44) ^A	18.18 (± 0.32)	21.52 (± 0.43) ^B	-14.23 (± 0.53)	22.23 (± 3.11)	21.31 (± 0.71)
	11	<i>November</i>	99 (± 4)	-15.12 (± 0.31) ^B	18.08 (± 1.02)	22.39 (± 0.20) ^A	-14.72 (± 0.51)	21.79 (± 1.64)	21.43 (± 0.61)

Following normality and variance homogeneity, Student’s *t*-tests or a non-parametric analogue, the Wilcoxon signed-rank test were used for the statistical intraspecific comparisons of isotopic values.

Statistical differences between sex:

- Scalloped hammerhead shark blood $\delta^{13}\text{C}$: $p > 0.05$
- Scalloped hammerhead shark blood $\delta^{15}\text{N}$: $t_{18} = -2.28, p < 0.05$
- Scalloped hammerhead shark blood $\delta^{34}\text{S}$: $p > 0.05$
- Scalloped hammerhead shark muscle $\delta^{13}\text{C}$: $p > 0.05$
- Scalloped hammerhead shark muscle $\delta^{15}\text{N}$: $p > 0.05$
- Scalloped hammerhead shark muscle $\delta^{34}\text{S}$: $p > 0.05$
- Smooth hammerhead shark blood $\delta^{13}\text{C}$: $p > 0.05$
- Smooth hammerhead shark blood $\delta^{15}\text{N}$: $p > 0.05$
- Smooth hammerhead shark blood $\delta^{34}\text{S}$: $p > 0.05$
- Smooth hammerhead shark muscle $\delta^{13}\text{C}$: $p > 0.05$
- Smooth hammerhead shark muscle $\delta^{15}\text{N}$: $p > 0.05$
- Smooth hammerhead shark muscle $\delta^{34}\text{S}$: $p > 0.05$
- Pacific sharpnose shark blood $\delta^{13}\text{C}$: $t_{18} = -2.52, p < 0.05$
- Pacific sharpnose shark blood $\delta^{15}\text{N}$: $p > 0.05$
- Pacific sharpnose shark blood $\delta^{34}\text{S}$: $p > 0.05$
- Pacific sharpnose shark muscle $\delta^{13}\text{C}$: $t_{17} = -2.14, p < 0.05$
- Pacific sharpnose shark muscle $\delta^{15}\text{N}$: $W = 89, p < 0.01$
- Pacific sharpnose shark muscle $\delta^{34}\text{S}$: $p > 0.05$

Statistical differences between sampling month:

- Scalloped hammerhead shark blood $\delta^{13}\text{C}$: $p > 0.05$
- Scalloped hammerhead shark blood $\delta^{15}\text{N}$: $p > 0.05$
- Scalloped hammerhead shark blood $\delta^{34}\text{S}$: $p > 0.05$
- Scalloped hammerhead shark muscle $\delta^{13}\text{C}$: $t_{18} = -2.34, p < 0.05$
- Scalloped hammerhead shark muscle $\delta^{15}\text{N}$: $p > 0.05$
- Scalloped hammerhead shark muscle $\delta^{34}\text{S}$: $p > 0.05$
- Pacific sharpnose shark blood $\delta^{13}\text{C}$: $p > 0.05$
- Pacific sharpnose shark blood $\delta^{15}\text{N}$: $p > 0.05$
- Pacific sharpnose shark blood $\delta^{34}\text{S}$: $p > 0.05$
- Pacific sharpnose shark muscle $\delta^{13}\text{C}$: $t_{14} = 2.30, p < 0.05$
- Pacific sharpnose shark muscle $\delta^{15}\text{N}$: $W = 3, p < 0.001$
- Pacific sharpnose shark muscle $\delta^{34}\text{S}$: $p > 0.05$

Statistical differences between muscle and blood isotopic values for each species (not shown in Table S1):

- Scalloped hammerhead shark $\delta^{13}\text{C}$: $p > 0.05$
- Scalloped hammerhead shark $\delta^{15}\text{N}$: $t_{38} = -9.56, p < 0.001$ (Muscle > Blood)
- Scalloped hammerhead shark $\delta^{34}\text{S}$: $W = 400, p < 0.001$ (Muscle < Blood)
- Smooth hammerhead shark $\delta^{13}\text{C}$: $p > 0.05$
- Smooth hammerhead shark $\delta^{15}\text{N}$: $W = 6, p < 0.001$ (Muscle > Blood)
- Smooth hammerhead shark $\delta^{34}\text{S}$: $W = 361, p < 0.001$ (Muscle < Blood)
- Pacific sharpnose shark $\delta^{13}\text{C}$: $t_{35} = 2.85, p < 0.01$ (Muscle < Blood)
- Pacific sharpnose shark $\delta^{15}\text{N}$: $W = 86.5, p < 0.01$ (Muscle > Blood)
- Pacific sharpnose shark $\delta^{34}\text{S}$: $W = 359, p < 0.001$ (Muscle < Blood)

Table S2- Statistical differences between sex or sampling month in the proportion of each fatty acid in the muscle and blood of scalloped hammerhead sharks, smooth hammerhead sharks and Pacific sharpnose sharks.

Tissue	Fatty acid	Sex			Sampling Month	
		Scalloped hammer.	Smooth hammer.	Pacific sharpnose	Scalloped hammer.	Pacific sharpnose
Muscle	14:0	$p > 0.05$	$p > 0.05$	M>F $W=70, p < 0.05$	$p > 0.05$	$p > 0.05$
	16:0	$p > 0.05$	$p > 0.05$	$p > 0.05$	March>Dec. $t_{16}=3.43, p < 0.01$	$p > 0.05$
	18:0	$p > 0.05$	$p > 0.05$	M<F $W=0, p < 0.001$	$p > 0.05$	March>Nov. $W=89, p < 0.001$
	16:1n-7	$p > 0.05$	M>F $t_{14}=2.48, p < 0.05$	M>F $t_{16}=2.59, p < 0.05$	$p > 0.05$	March<Nov. $t_{15}=-3.32, p < 0.01$
	16:1n-9	$p > 0.05$	$p > 0.05$	M<F $t_{17}=-2.48, p < 0.05$	$p > 0.05$	March>Nov. $W=79, p < 0.01$
	18:1n-7	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$	March>Nov. $W=73, p < 0.05$
	18:1n-9	$p > 0.05$	M>F $t_{12}=3.17, p < 0.01$	M>F $W=87, p < 0.001$	$p > 0.05$	March<Nov. $t_{14}=-6.65, p < 0.001$
	20:1n-9	$p > 0.05$	M>F $t_{14}=2.84, p < 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$
	24:1n-9	$p > 0.05$	$p > 0.05$	M<F $t_{17}=-4.49, p < 0.001$	March>Dec. $t_{16}=2.86, p < 0.05$	March>Nov. $t_{16}=5.03, p < 0.001$
	18:2n-6	$p > 0.05$	$p > 0.05$	M<F $W=19, p < 0.05$	March>Dec. $W=1, p < 0.001$	$p > 0.05$
	ARA	$p > 0.05$	$p > 0.05$	M<F $t_{17}=-3.09, p < 0.01$	$p > 0.05$	March>Nov. $t_{15}=2.69, p < 0.05$
	EPA	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$
	22:4n-6	$p > 0.05$	M<F $t_9=-2.63, p < 0.05$	M<F $W=0, p < 0.05$	$p > 0.05$	March>Nov. $W=78, p < 0.01$
	22:5n-3	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$
	22:5n-6	$p > 0.05$	$p > 0.05$	M<F $W=16, p < 0.05$	$p > 0.05$	March>Nov. $W=79, p < 0.01$
	DHA	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$
16:0DMA	$p > 0.05$	$p > 0.05$	M>F $W=86, p < 0.001$	$p > 0.05$	March<Nov. $W=3, p < 0.001$	
Blood	14:0	$p > 0.05$	M>F $t_6=2.74, p < 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$
	16:0	$p > 0.05$	$p > 0.05$	M>F $t_{12}=4.28, p < 0.01$	$p > 0.05$	March<Nov. $t_{13}=-5.08, p < 0.001$
	18:0	$p > 0.05$	$p > 0.05$	M>F $t_8=3.67, p < 0.01$	$p > 0.05$	March<Nov. $W=0, p < 0.001$
	16:1n-7	$p > 0.05$	M>F $t_9=3.81, p < 0.01$	$p > 0.05$	$p > 0.05$	$p > 0.05$
	18:1n-7	$p > 0.05$	$p > 0.05$	M<F $t_{10}=-3.23, p < 0.01$	$p > 0.05$	March>Nov. $t_{12}=2.58, p < 0.05$
	18:1n-9	$p > 0.05$	$p > 0.05$	M>F $t_5=4.01, p < 0.01$	$p > 0.05$	March<Nov. $t_7=-3.48, p < 0.05$
	20:1n-9	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$

	24:1n-9	$p > 0.05$	$p > 0.05$	$p > 0.05$	March>Dec. $t_{10} = -2.67, p < 0.05$	$p > 0.05$
	ARA	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$
	EPA	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$
	22:4n-6	$p > 0.05$	$p > 0.05$	$p > 0.05$	$p > 0.05$	March>Nov. $t_{12} = 2.75, p < 0.05$
	22:5n-3	$p > 0.05$	$p > 0.05$	$p > 0.05$	March<Dec. $t_7 = -3.93, p < 0.01$	$p > 0.05$
	22:5n-6	$p > 0.05$	$p > 0.05$	M<F $t_{13} = -3.97, p < 0.01$	$p > 0.05$	March>Nov. $t_{11} = 4.66, p < 0.001$
	DHA	$p > 0.05$	$p > 0.05$	M<F $W = 5, p < 0.05$	$p > 0.05$	March>Nov. $W = 47, p < 0.05$

Statistical differences between muscle and blood fatty acid proportion for each species (not shown in Table S2):

- Scalloped hammerhead shark 14:0: $p > 0.05$
- Scalloped hammerhead shark 16:0: $t_{19} = 3.95, p < 0.001$ (Muscle > Blood)
- Scalloped hammerhead shark 18:0: $W = 232, p < 0.001$ (Muscle > Blood)
- Scalloped hammerhead shark 16:1n-7: $p > 0.05$
- Scalloped hammerhead shark 18:1n-7: $W = 218, p < 0.001$ (Muscle > Blood)
- Scalloped hammerhead shark 18:1n-9: $p > 0.05$
- Scalloped hammerhead shark 20:1n-9: $t_{28} = 2.37, p < 0.05$ (Muscle > Blood)
- Scalloped hammerhead shark 24:1n-9: $p > 0.05$
- Scalloped hammerhead shark ARA: $p > 0.05$
- Scalloped hammerhead shark EPA: $t_{20} = -6.02, p < 0.001$ (Muscle < Blood)
- Scalloped hammerhead shark 22:4n-6: $t_{29} = 3.69, p < 0.001$ (Muscle > Blood)
- Scalloped hammerhead shark 22:5n-3: $W = 172, p < 0.05$ (Muscle > Blood)
- Scalloped hammerhead shark 22:5n-6: $W = 26, p < 0.001$ (Muscle < Blood)
- Scalloped hammerhead shark DHA: $W = 13, p < 0.001$ (Muscle < Blood)
- Smooth hammerhead shark 14:0: $W = 241, p < 0.01$ (Muscle > Blood)
- Smooth hammerhead shark 16:0: $t_{33} = 8.69, p < 0.001$ (Muscle > Blood)
- Smooth hammerhead shark 18:0: $t_{31} = 7.31, p < 0.001$ (Muscle > Blood)
- Smooth hammerhead shark 16:1n-7: $t_{27} = 2.58, p < 0.05$ (Muscle > Blood)
- Smooth hammerhead shark 18:1n-7: $t_{27} = 5.14, p < 0.001$ (Muscle > Blood)
- Smooth hammerhead shark 18:1n-9: $t_{30} = 2.58, p < 0.05$ (Muscle > Blood)
- Smooth hammerhead shark 20:1n-9: $p > 0.05$
- Smooth hammerhead shark 24:1n-9: $p > 0.05$
- Smooth hammerhead shark ARA: $t_{29} = -2.28, p < 0.05$ (Muscle < Blood)
- Smooth hammerhead shark EPA: $t_{31} = -7.03, p < 0.001$ (Muscle < Blood)
- Smooth hammerhead shark 22:4n-6: $W = 284, p < 0.001$ (Muscle > Blood)
- Smooth hammerhead shark 22:5n-3: $t_{27} = 4.39, p < 0.001$ (Muscle > Blood)
- Smooth hammerhead shark 22:5n-6: $W = 6, p < 0.001$ (Muscle < Blood)
- Smooth hammerhead shark DHA: $W = 1, p < 0.001$ (Muscle < Blood)
- Pacific sharpnose shark 14:0: $p > 0.05$
- Pacific sharpnose shark 16:0: $t_{32} = 8.92, p < 0.001$ (Muscle > Blood)

- Pacific sharpnose shark 18:0: $t_{32} = 7.04, p < 0.001$ (Muscle > Blood)
- Pacific sharpnose shark 16:1n-7: $p > 0.05$
- Pacific sharpnose shark 18:1n-7: $W = 279, p < 0.001$ (Muscle > Blood)
- Pacific sharpnose shark 18:1n-9: $p > 0.05$
- Pacific sharpnose shark 20:1n-9: $p > 0.05$
- Pacific sharpnose shark 24:1n-9: $p > 0.05$
- Pacific sharpnose shark ARA: $W = 75, p < 0.05$ (Muscle < Blood)
- Pacific sharpnose shark EPA: $W = 12, p < 0.001$ (Muscle < Blood)
- Pacific sharpnose shark 22:4n-6: $W = 257, p < 0.001$ (Muscle > Blood)
- Pacific sharpnose shark 22:5n-3: $p > 0.05$
- Pacific sharpnose shark 22:5n-6: $W = 74, p < 0.05$ (Muscle < Blood)
- Pacific sharpnose shark DHA: $W = 20, p < 0.001$ (Muscle < Blood)

Table S3–Linear regressions of fatty acid proportion with total length in muscle and blood of scalloped hammerhead, smooth hammerhead and Pacific sharpnose sharks (ontogenetic increases and decreases are indicated by arrows).

Tissue	Fatty acid	Scalloped hammerhead	Smooth hammerhead	Pacific sharpnose
Muscle	14:0	$p > 0.05$	$p > 0.05$	$p > 0.05$
	16:0	$p > 0.05$	$p > 0.05$	$p > 0.05$
	18:0	$p > 0.05$	$p > 0.05$	$p > 0.05$
	16:1n-7	$\searrow R^2=0.27, F=6, p < 0.05$	$p > 0.05$	$p > 0.05$
	16:1n-9	$p > 0.05$	$p > 0.05$	$p > 0.05$
	18:1n-7	$p > 0.05$	$p > 0.05$	$\nearrow R^2=0.28, F=7, p < 0.05$
	18:1n-9	$\searrow R^2=0.50, F=16, p < 0.01$	$p > 0.05$	$\searrow R^2=0.34, F=9, p < 0.01$
	20:1n-9	$p > 0.05$	$p > 0.05$	$p > 0.05$
	24:1n-9	$\nearrow R^2=0.40, F=10, p < 0.01$	$p > 0.05$	$\nearrow R^2=0.22, F=5, p < 0.05$
	18:2n-6	$p > 0.05$	$\searrow R^2=0.33, F=7, p < 0.05$	$p > 0.05$
	ARA	$p > 0.05$	$p > 0.05$	$p > 0.05$
	EPA	$p > 0.05$	$p > 0.05$	$p > 0.05$
	22:4n-6	$\nearrow R^2=0.69, F=35, p < 0.001$	$p > 0.05$	$\nearrow R^2=0.38, F=11, p < 0.01$
	22:5n-3	$\nearrow R^2=0.26, F=6, p < 0.05$	$p > 0.05$	$p > 0.05$
	22:5n-6	$p > 0.05$	$p > 0.05$	$\nearrow R^2=0.33, F=9, p < 0.01$
	DHA	$p > 0.05$	$p > 0.05$	$p > 0.05$
	16:0DMA	$p > 0.05$	$p > 0.05$	$p > 0.05$
Blood	14:0	$p > 0.05$	$p > 0.05$	$p > 0.05$
	16:0	$p > 0.05$	$\searrow R^2=0.34, F=8, p < 0.05$	$p > 0.05$
	18:0	$p > 0.05$	$p > 0.05$	$\searrow R^2=0.31, F=6, p < 0.05$
	16:1n-7	$p > 0.05$	$p > 0.05$	$p > 0.05$
	18:1n-7	$p > 0.05$	$p > 0.05$	$p > 0.05$
	18:1n-9	$p > 0.05$	$p > 0.05$	$p > 0.05$
	20:1n-9	$p > 0.05$	$p > 0.05$	$p > 0.05$
	24:1n-9	$\nearrow R^2=0.42, F=8, p < 0.05$	$\nearrow R^2=0.23, F=5, p < 0.05$	$p > 0.05$
	ARA	$p > 0.05$	$p > 0.05$	$p > 0.05$
	EPA	$p > 0.05$	$p > 0.05$	$p > 0.05$
	22:4n-6	$p > 0.05$	$p > 0.05$	$p > 0.05$
	22:5n-3	$p > 0.05$	$p > 0.05$	$p > 0.05$
	22:5n-6	$\nearrow R^2=0.41, F=8, p < 0.05$	$p > 0.05$	$p > 0.05$
	DHA	$p > 0.05$	$p > 0.05$	$p > 0.05$

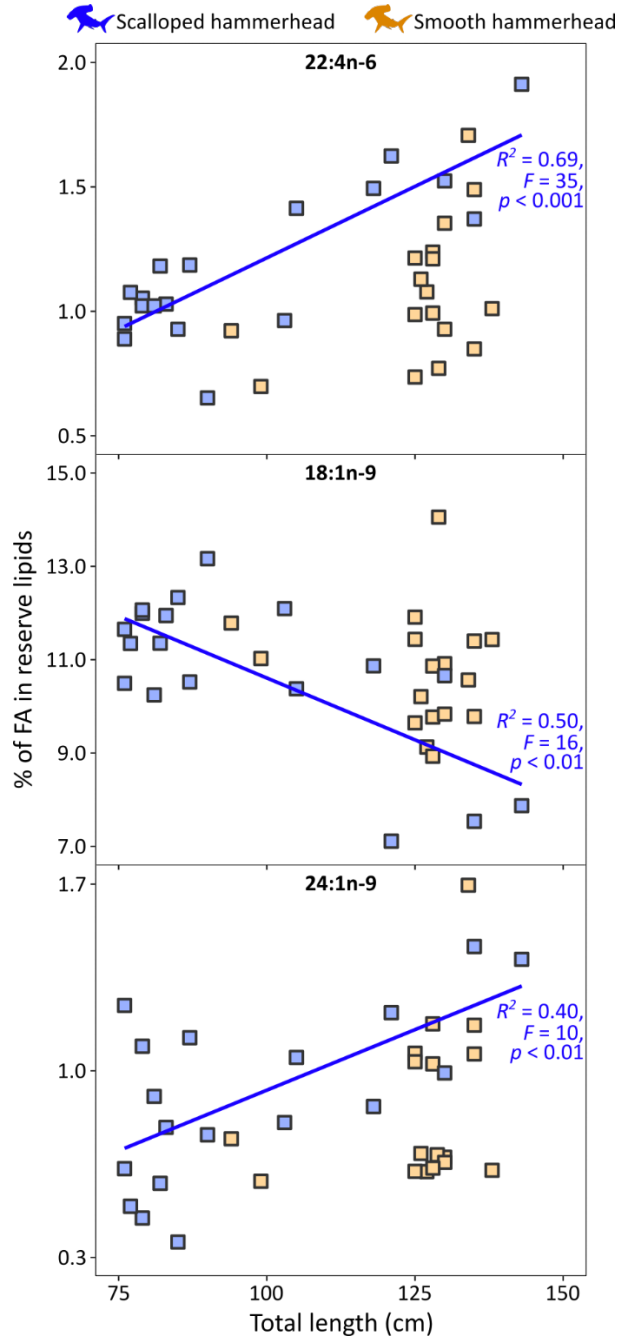


Figure S1—Relationship between the proportion of muscle 22:4n-6, 18:1n-9 and 24:1n-9 and total length of scalloped and smooth hammerhead sharks. Linear regressions were performed separately for each species and are shown with their associated R^2 , F and p -values when significant.