

**Table 3.** Analysis of variance on mean green crab size (carapace width) discovered in intertidal Arctic surfclam growout boxes on 21 January 2023 at Timber Cove, Gouldsboro, Maine. Box size (a = 2), clam size (b = 2), and density (c = 3) were considered fixed factors. Crabs occurred in 41 of 60 boxes. The data set was unbalanced; therefore, Type III sums of squares were used.

Source of Variation	df	SS	MS	F	Pr > F
Clam Size	1	0.149	0.149	0.00	0.9462
Box Size	1	5.812	5.812	0.18	0.6742
Clam Size x Box Size	1	0.838	0.838	0.03	0.8730
Density(Clam Size, Box Size)	8	98.912	12.364	0.38	0.9206
Error	29	934.682	32.230		
Total	40	1040.393			

**Table 4.** Analysis of variance on mean final shell length (mm) of Arctic surfclams at Timber Cove, Gouldsboro, Maine on 21 January 2023. Sources of variation are described in Table 3. Live clams were recovered in 27 of 60 growout boxes; hence, the data set was unbalanced and Type III sums of square were used. A priori contrasts are included for the effect of density within each combination of clam size (Small =  $9.6 \pm 0.4$  mm; Large =  $12. \pm 0.4$  mm) and box size (Small = 2ft<sup>2</sup>; Large = 4ft<sup>2</sup>). Significant sources of variation are boldfaced.

Source of Variation	df	SS	MS	F	Pr > F
Clam Size	1	10.076	10.149	4.63	<b>0.0481</b>
Box Size	1	4.032	4.032	1.85	0.1936
Clam Size x Box Size	1	0.027	0.027	0.01	0.9121
Density(Clam Size, Box Size)	8	33.432	4.179	1.92	0.1315
Clam:Large Box:Small	2	20.752	10.376	4.77	<b>0.0249</b>
Clam:Large Box:Large	2	5.109	2.554	1.17	0.3371
Clam:Small Box:Small	2	5.581	2.791	1.28	0.3067
Clam:Small Box:Large	2	1.990	0.995	0.46	0.6399
Error	15	32.653	2.177		
Total	26	80.220			

**Table 5.** Analysis of variance on mean relative growth of Arctic surfclams at Timber Cove, Gouldsboro, Maine. Sources of variation are described in Tables 3. Live clams were recovered in 27 of 60 growout boxes; hence, the data set was unbalanced and Type III sums of square were used. A priori contrasts are included for the effect of density within each combination of clam size (Small =  $9.6 \pm 0.4$  mm; Large =  $12. \pm 0.4$  mm) and box size (Small =  $2\text{ft}^2$ ; Large =  $4\text{ft}^2$ ). Significant sources of variation are boldfaced. Sum of Squares and Mean Square values are multiplied by  $10^4$ .

Source of Variation	df	SS	MS	F	Pr > F
Clam Size	1	1.186	1.186	32.08	< <b>0.0001</b>
Box Size	1	0.037	0.037	1.01	0.3307
Clam Size x Box Size	1	0.070	0.070	1.90	0.1887
Density(Clam Size, Box Size)	8	0.372	0.047	1.26	0.3334
Clam:Large Box:Small	2	0.099	0.050	1.34	0.2915
Clam:Large Box:Large	2	0.138	0.069	1.86	0.1898
Clam:Small Box:Small	2	0.074	0.039	1.07	0.3678
Clam:Small Box:Large	2	0.061	0.031	0.84	0.4510
Error	15	0.555	0.037		
Total	26	2.220			

**Table 6.** Analysis of variance on mean absolute growth (mm) of Arctic surfclams at Timber Cove, Gouldsboro, Maine. Sources of variation are described in Table 3. Live clams were recovered in 27 of 60 growout boxes; hence, the data set was unbalanced and Type III sums of square were used. A priori contrasts are included for the effect of density within each combination of clam size (Small =  $9.6 \pm 0.4$  mm; Large =  $12. \pm 0.4$  mm) and box size (Small =  $2\text{ft}^2$ ; Large =  $4\text{ft}^2$ ). Significant sources of variation are boldfaced.

Source of Variation	df	SS	MS	F	Pr > F
Clam Size	1	56.282	56.282	14.60	<b>0.0017</b>
Box Size	1	3.239	3.239	0.84	0.3739
Clam Size x Box Size	1	4.464	4.464	1.16	0.2990
Density(Clam Size, Box Size)	8	42.191	5.274	1.37	0.2861
Clam:Large Box:Small	2	19.906	9.953	2.58	0.1089
Clam:Large Box:Large	2	9.532	4.766	1.24	0.3174
Clam:Small Box:Small	2	9.437	4.718	1.22	0.3229
Clam:Small Box:Large	2	3.316	1.658	0.43	0.6583
Error	15	57.844	3.856		
Total	26	164.020			

**Table 7.** Analysis of variance on mean final shell length (mm) of Arctic surfclams at Mud Hole Cove, Beals, Maine on 20 January 2023. Sources of variation are described in Table 3. Live clams were recovered in each of the 60 growout boxes. A priori contrasts are included for the effect of density within each combination of clam size (Small =  $9.6 \pm 0.4$  mm; Large =  $12. \pm 0.4$  mm) and box size (Small =  $2\text{ft}^2$ ; Large =  $4\text{ft}^2$ ). Significant sources of variation are boldfaced.

Source of Variation	df	SS	MS	F	Pr > F
Clam Size	1	43.520	43.520	4.80	<b>0.0334</b>
Box Size	1	66.571	66.571	7.34	<b>0.0093</b>
Clam Size x Box Size	1	21.600	21.600	2.38	0.1294
Density(Clam Size, Box Size)	8	63.674	7.959	0.88	0.5423
Clam:Large Box:Small	2	5.776	2.888	0.32	0.7277
Clam:Large Box:Large	2	27.897	13.949	1.54	0.2248
Clam:Small Box:Small	2	2.277	1.139	0.13	0.8784
Clam:Small Box:Large	2	27.723	13.862	1.53	0.2269
Error	48	435.530	9.074		
Total	59	630.895			

**Table 8.** Analysis of variance on mean relative growth rate of Arctic surfclams at Mud Hole Cove, Beals, Maine on 20 January 2023. Sources of variation are described in Table 3. Live clams were recovered in each of the 60 growout boxes. A priori contrasts are included for the effect of density within each combination of clam size (Small =  $9.6 \pm 0.4$  mm; Large =  $12. \pm 0.4$  mm) and box size (Small =  $2\text{ft}^2$ ; Large =  $4\text{ft}^2$ ). Significant sources of variation are boldfaced.

Source of Variation	df	SS	MS	F	Pr > F
Clam Size	1	2560.526	2560.526	116.61	<b>&lt;0.0001</b>
Box Size	1	80.083	80.083	3.65	0.0622
Clam Size x Box Size	1	15.574	15.574	0.71	0.4039
Density(Clam Size, Box Size)	8	236.377	29.547	1.35	0.2446
Clam:Large Box:Small	2	104.820	52.410	2.39	0.1025
Clam:Large Box:Large	2	13.738	6.869	0.31	0.7349
Clam:Small Box:Small	2	2.115	1.058	0.05	0.9513
Clam:Small Box:Large	2	115.704	57.852	2.63	0.0824
Error	48	1053.971	21.958		
Total	59	3946.532			

**Table 9.** Analysis of variance on mean absolute growth (mm) of Arctic surfclams at Mud Hole Cove, Beals, Maine on 20 January 2023. Sources of variation are described in Table 3. Live clams were recovered in each of the 60 growout boxes. A priori contrasts are included for the effect of density within each combination of clam size (Small =  $9.6 \pm 0.4$  mm; Large =  $12. \pm 0.4$  mm) and box size (Small = 2ft<sup>2</sup>; Large = 4ft<sup>2</sup>). Significant sources of variation are boldfaced.

<b>Source of Variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Pr &gt; F</b>
Clam Size	1	86.400	86.400	15.97	<b>0.0002</b>
Box Size	1	48.420	48.420	8.95	<b>0.0044</b>
Clam Size x Box Size	1	13.443	13.443	2.48	0.1216
Density(Clam Size, Box Size)	8	67.409	8.426	1.56	0.1630
Clam:Large Box:Small	2	19.241	9.621	1.78	0.1796
Clam:Large Box:Large	2	12.292	6.146	1.14	0.3283
Clam:Small Box:Small	2	1.407	0.704	0.13	0.8784
Clam:Small Box:Large	2	34.468	17.234	3.18	0.0505
Error	48	259.730	5.411		
Total	59	475.402			