

Table 20. Analysis of variance on both (a) untransformed and (b) transformed ($\arcsine\sqrt{P}$) mean percent survival across six stocking densities from field trial in Gouldsboro, Maine (Timber Cove) from 20 April 2023 to 14 January 2024. Orthogonal contrasts are indented below the Stocking Density (#/box) source of variation, and examine potential stepwise relationships between density treatments.

(a)

| Source of Variation | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-------------------------|-----------|--------------------|------------------|-------------|---------------|
| Stocking Density | 5 | 234.593621 | 46.918724 | 0.89 | 0.4920 |
| 25 vs. rest | 1 | 67.1081893 | 67.1081893 | 1.28 | 0.2632 |
| 50 vs. rest | 1 | 13.4622840 | 13.4622840 | 0.26 | 0.6147 |
| 100 vs. rest | 1 | 120.2223251 | 120.2223251 | 2.29 | 0.1361 |
| 150 vs. rest | 1 | 25.2057613 | 25.2057613 | 0.48 | 0.4914 |
| 200 vs. 225 | 1 | 8.5950617 | 8.5950617 | 0.16 | 0.6874 |
| Error | 54 | 2835.202469 | 52.503749 | | |
| Total | 59 | 3069.796091 | | | |

(b)

| Source of Variation | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-------------------------|-----------|--------------------|------------------|-------------|---------------|
| Stocking Density | 5 | 325.269621 | 65.053924 | 1.31 | 0.2730 |
| 25 vs. rest | 1 | 64.7902315 | 64.7902315 | 1.31 | 0.2581 |
| 50 vs. rest | 1 | 36.4617821 | 36.4617821 | 0.74 | 0.3951 |
| 100 vs. rest | 1 | 169.2266120 | 169.2266120 | 3.41 | 0.0702 |
| 150 vs. rest | 1 | 26.4124872 | 26.4124872 | 0.53 | 0.4687 |
| 200 vs. 225 | 1 | 28.3785082 | 28.3785082 | 0.57 | 0.4527 |
| Error | 54 | 2678.772524 | 49.606899 | | |
| Total | 59 | 3004.042145 | | | |

Table 21. (a) Regression model to assess the strength of a linear trend between survival per box and stocking density. (b) Lack-of-fit test to determine if a curvilinear trend exists between survival per box and stocking density.

(a)

| Source of Variation | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|---------------------|----|----------------|-------------|---------|--------|
| Linear Model | 1 | 11.86726 | 11.86726 | 0.23 | 0.6370 |
| Error | 58 | 3057.92883 | 52.72291 | | |
| Total | 59 | 3069.79609 | | | |

(b)

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|--------------------------|----------|-----------------|-------------|---------|--------|
| Full Model | 5 | 234.59362 | 46.91872 | 0.89 | 0.4920 |
| Linear Model | <u>1</u> | <u>11.86726</u> | 11.86726 | | |
| Deviation from Linearity | 4 | 222.72636 | 55.68159 | 1.06 | 0.3868 |
| Error | 54 | 2835.20247 | 52.50375 | | |
| Total | 59 | 3069.79609 | | | |

Table 22. Analysis of variance on mean number of green crabs per nursery growout box at Timber Cove, Gouldsboro, Maine from 20 April 2023 to 14 January 2024. Orthogonal contrasts are indented below the Stocking Density (#/box) source of variation, and examine potential stepwise relationships between density treatments.

| Source of Variation | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-------------------------|-----------|-------------------|-----------------|-------------|---------------|
| Stocking Density | 5 | 23.350000 | 4.670000 | 1.57 | 0.1833 |
| 25 vs. rest | 1 | 3.630000 | 3.630000 | 1.22 | 0.2737 |
| 50 vs. rest | 1 | 7.220000 | 7.200000 | 2.43 | 0.1247 |
| 100 vs. rest | 1 | 1.633333 | 1.633333 | 0.55 | 0.4614 |
| 150 vs. rest | 1 | 1.066667 | 1.067777 | 0.36 | 0.5514 |
| 200 vs. 225 | 1 | 9.800000 | 9.800000 | 3.30 | 0.0748 |
| Error | 54 | 160.300000 | 2.968519 | | |
| Total | 59 | 183.650000 | | | |

Table 23. Analysis of variance on mean survival of cultured Arctic surfclams per nursery growout box at Mud Hole Cove, Beals, Maine from 21 April 2023 to 15 January 2024. Orthogonal contrasts are indented below the Stocking Density (#/box) source of variation, and examine potential stepwise relationships between density treatments.

| Source of Variation | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-------------------------|-----------|--------------------|-------------------|-------------|---------------|
| Stocking Density | 5 | 16369.54979 | 3273.90996 | 4.41 | 0.0019 |
| 25 vs. rest | 1 | 13865.95621 | 13865.95621 | 18.66 | <.0001 |
| 50 vs. rest | 1 | 2013.30377 | 2013.30377 | 2.71 | 0.1056 |
| 100 vs. rest | 1 | 490.27665 | 490.27665 | 0.66 | 0.4202 |
| 150 vs. rest | 1 | 0.00329 | 0.00329 | 0.00 | 0.9983 |
| 200 vs. 225 | 1 | 0.00988 | 0.00988 | 0.00 | 0.9971 |
| Error | 54 | 40125.97778 | 743.07366 | | |
| Total | 59 | 56495.52757 | | | |