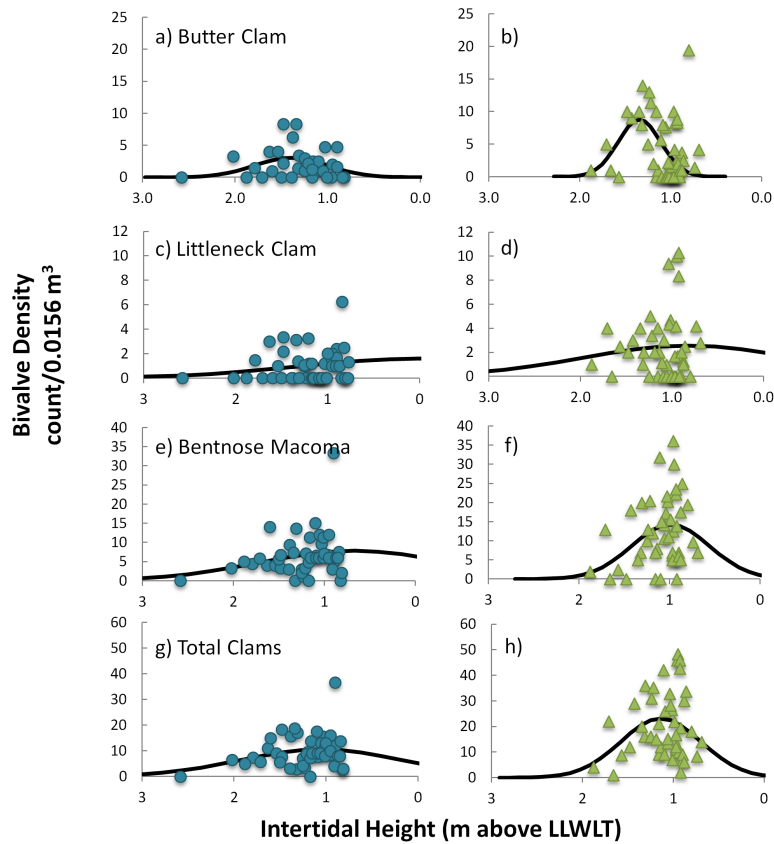


Appendix 2. Bivalve density

Figure A2.1. Actual (symbols) and predicted (line) density of butter clams (a, b), littleneck clams (c, d), Bentnose macoma (e, f) and total clams (g, h) as a function of intertidal height (m above LLWLT) in clam gardens (green) and non-walled beaches (blue). Note variation in y-axis range among different bivalve species.



Equation A2.1. Formula for fitted gaussian curve where y=response, x=intertidal height, a=height, μ =mean, and σ =standard deviation.

$$y = a \cdot \exp(-0.5 \cdot ((x - \mu) / \sigma)^2)$$

Table A2.1. Parameters for the modeled response of density (count/0.0156m³) of butter clam (*Saxidomus gigantea*), Bentnose macoma (*Macoma spp.*), littleneck clam (*Leukoma staminea*) and total clam species as a function of intertidal height. Each response was predicted by fitting a Gaussian curve (Eq. A4.1) to the data.

Predictive Gaussian Curves, 3 parameter: $y = a \cdot \exp(-0.5 \cdot ((x - \mu) / \sigma)^2)$

| Type | Response | a (height) | μ (mean) | σ (standard deviation) | SSQ (sum of squares) |
|------|------------------|------------|--------------|-------------------------------|----------------------|
| NW | S.g. Density | 3.05 | 1.39 | 0.39 | 163.91 |
| CG | S.g. Density | 8.74 | 1.35 | 0.24 | 570.19 |
| NW | L.s. Density | 1.60 | 0 | 1.30 | 74.90 |
| CG | L.s. Density | 2.56 | 0.82 | 1.15 | 327.15 |
| NW | M.spp. Density | 7.82 | 0.67 | 1.04 | 1277.24 |
| CG | M.spp. Density | 14.24 | 0.99 | 0.43 | 3115.82 |
| NW | All spp. Density | 10.61 | 1.05 | 0.87 | 1654.02 |
| CG | All spp. Density | 23.10 | 1.14 | 0.44 | 6491.84 |