700　Table 2. Analysis of the effect of development type and the scale of variation (within or

701　among mothers) in offspring size in marine invertebrates with direct or indirect development.

702

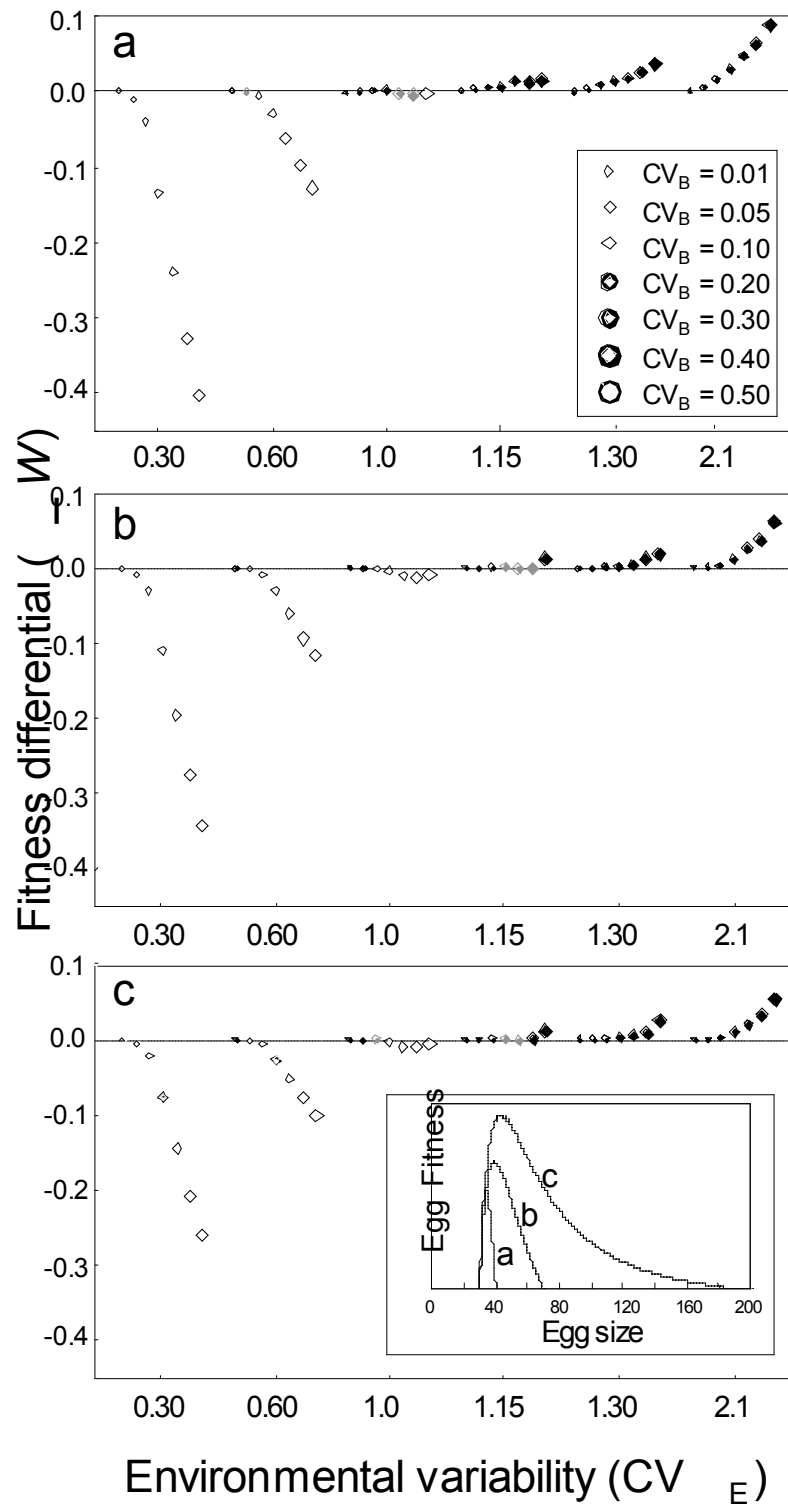| Source	Df	MS	F	P
Species	22	27.44	2.84	0.009
Development type	2	13.31	1.37	0.273
Scale of Variation	1	15.16	1.57	0.223
Interaction	2	83.30	8.62	0.002
Error	22	9.65		

703

704

704   **Figure 1. Fitness differentials (ΔW), representing the relative fitness of mothers**

705   **producing offspring of variable size within-broods (variable strategy), shown for**

706   **varying levels of environmental variability (CV_E) and within-brood variability (CV_B)**

707   **for three egg fitness functions varying 16-fold in the viable egg size range: a, $m_{min} = 30$,**

708   **$m_{max} = 40$; b, $m_{min} = 30$, $m_{max} = 70$; c, $m_{min} = 30$, $m_{max} = 190$ (see inset in panel c). Each**

709   **point represents mean ΔW for at least 500 simulation runs (equivalent to generations or**

710   **reproductive bouts) for a given combination of parameters, with each simulation**

711   **comprising 500 females pursuing each of the two strategies: open circles denote $\Delta W < 0$**

712   **(invariant strategy advantage) and closed circles denote $\Delta W > 0$ (variable strategy**

713   **advantage) based on one-sample t-tests ($t > \lvert 2.01 \rvert$, $P < 0.05$); grey circles represent**

714   **parameter combinations where ΔW was not significantly different from zero ($P > 0.05$)**

715   **after 2500 simulation runs. The horizontal line represents equal fitness for the two**

716   **strategies ($\Delta W = 0$). 95% confidence limits are narrower than the smallest symbol.**
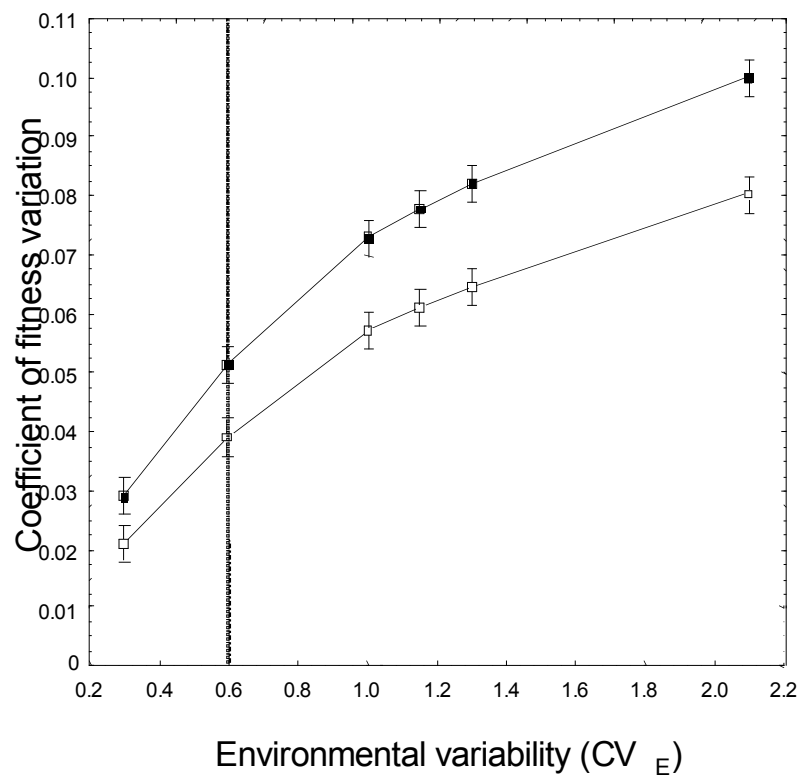
717

718   **Figure 2. Mean coefficients of variation in maternal fitness of the variable (open**

719   **squares) and invariant (closed squares) reproductive strategies at varying levels of**

720   **environmental variability (CV_E). Each coefficient of fitness variation was based on**

721   **mean fitness values from 100 generations or reproductive bouts. For the variable**

722   **strategy, data are pooled for seven levels of within-brood variation (CV_B). Data are**

723   **based on an egg fitness function with $m_{min} = 30$ and $m_{max} = 70$; other functions (see Fig.**

724   **2) yielded similar patterns (not shown). Bars represent 95% confidence limits. The**

725   **vertical line represents the lowest CV_E that yielded a significant within-generation**

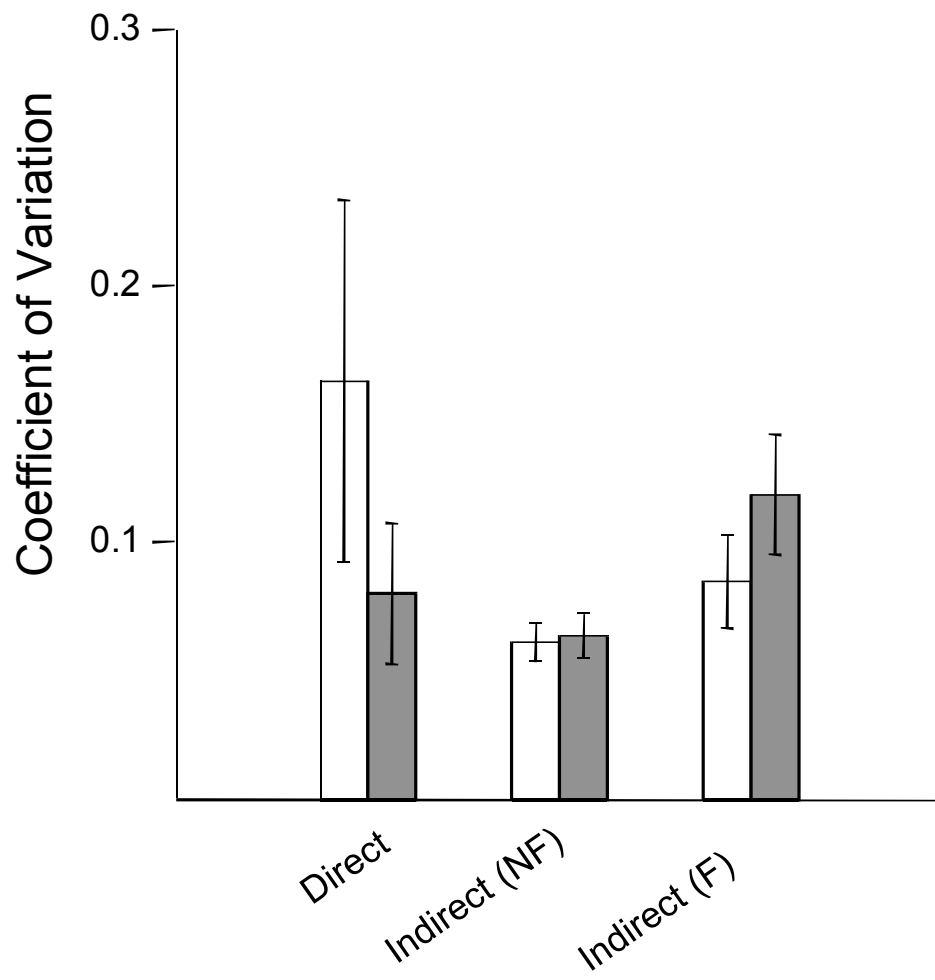726   **advantage for the variable strategy ($\Delta W > 0$).**

727

Figure 3. Coefficient of variation in offspring size among different developmental modes of marine invertebrates. Open bars indicate mean (± S.E.) coefficient of variation among mothers and closed bars indicate mean (± S.E.) within-mothers (NF = non-feeding larvae, F = feeding larvae).

Figure 1

Figure 2

Figure 3