

Aposematism in pink warty sea cucumbers: independent effects of chromatic and achromatic cues

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Marine Ecology Progress Series 631: 157–164 (2019)

Figure S1. (a) To match hues, the Red-Green (R:G), Red-Blue (R:B) and Green-Blue (G:B) ratios of clay model colors were matched to the natural ranges of these ratios (thick, horizontal black lines with vertical delimiting bars) as extracted from 35 samples (one sample being a live *Cercodemas anceps* on a seagrass bed background). (b) Similarly, the chroma of each color was also matched to the natural ranges of their corresponding colors. In both hue and chroma, Bright and Dull Pink, and Bright and Dull Yellow, were matched to the pink and yellow on actual *C. anceps*. Bright and Dull Brown, and Bright and Dull Green, were matched to the brown and green on the seagrass background (black dots represent means). Note that the conspicuous hues (i.e. pink and yellow) also had more conspicuous chroma levels. (c) The luminance of the clay model colors was also matched to the means and ranges of their corresponding colors. Bright Pink and Bright Brown were matched to the luminance of the pink on actual *C. anceps* while Dull Pink and Dull Brown were matched to the luminance of the brown in the seagrass background. Bright Yellow and Bright Green were matched to the luminance of the yellow on actual sea cucumbers while Dull Yellow and Dull Green were matched to the luminance of the green in the seagrass background (black dots represent means)

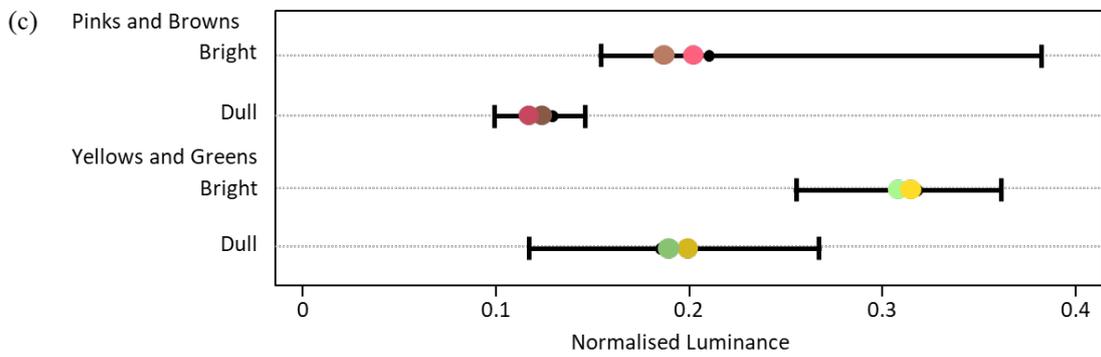
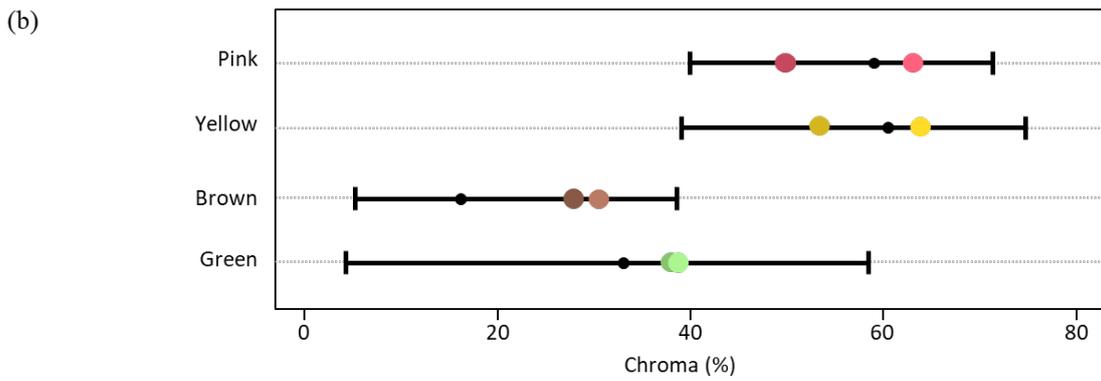
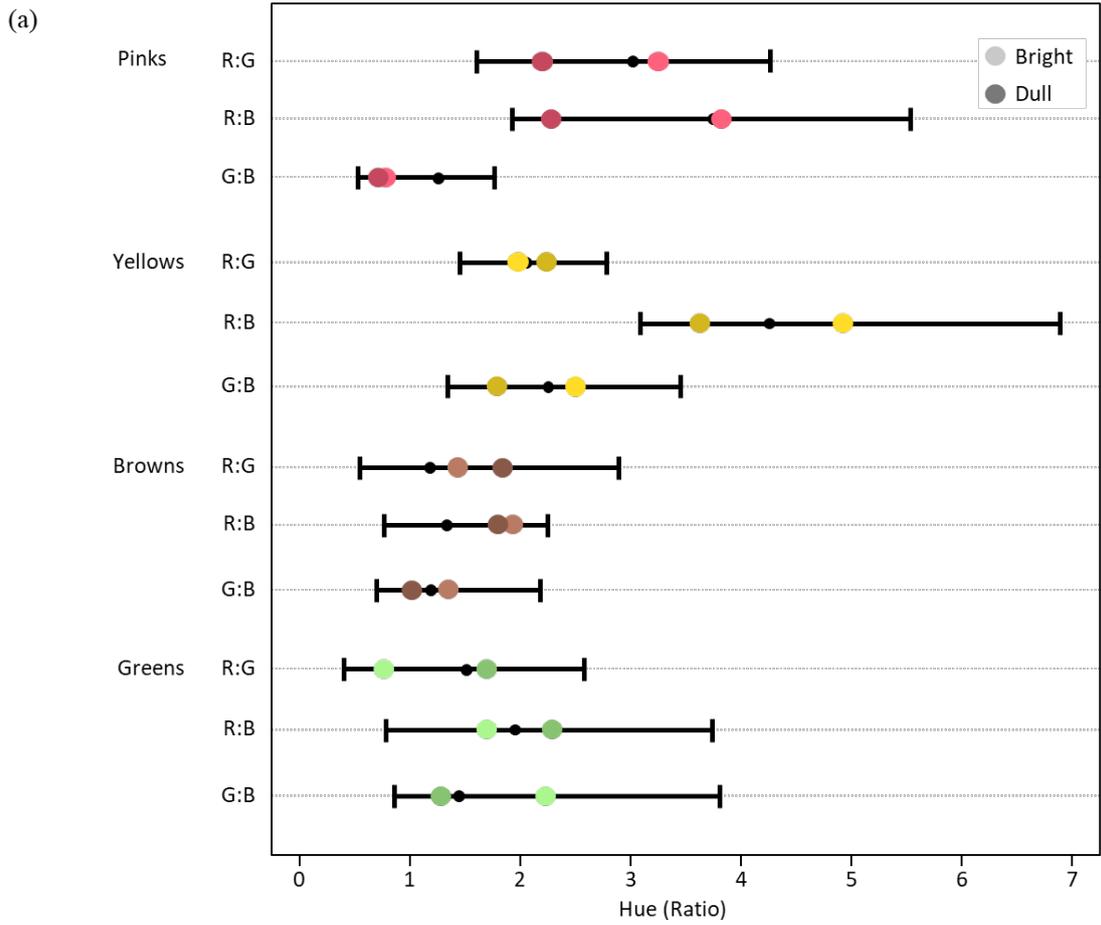


Table S1. Amount and type of AmeriColor Soft Gel Paste™ food coloring used (with identification codes and lot numbers) to fabricate each type of color in the models. All amounts are given for 40g of Sargent Art® Modeling Clay Plastelina (Cream)

Colour	Amount and type of food coloring used
Bright Yellow	50 drops “Electric yellow” (code 261, lot number 3094 D)
Bright Pink	8 drops “Electric Pink” (code 164, lot number 3094 E) 25 drops “Peach” (code 117, lot number 3505 B)
Bright Green	4 drops “Electric Green” (code 162, lot number 3062 G)
Bright Brown	20 drops “Warm Brown” (code 131, lot number 0836 B)
Dull Yellow	50 drops “Electric Yellow” (code 261, lot number 3094 D) 3 drops “Chocolate Brown” (code 104, lot number 2018 A)
Dull Pink	8 drops “Electric Pink” (code 164, lot number 3094 E) 25 drops “Peach” (code 117, lot number 3505 B) 4 drops “Chocolate Brown” (code 104, lot number 2018 A)
Dull Green	4 drops “Electric Green” (code 162, lot number 3062 G) 3 drops “Chocolate Brown” (code 104, lot number 2018 A)
Dull Brown	20 drops “Warm Brown” (code 131, lot number 0836 B) 7 drops “Chocolate Brown” (code 104, lot number 2018 A)

Table S2. GLMM results analysing whether each clay model was attacked show similar results to the analysis of the number of bites, with significant and independent effects for the chromatic and achromatic cues

Variable	β	SE	Z	P
Intercept	0.486	0.236	1.712	0.097
Achromatic cue (Dull)	0.934	0.406	2.303	0.021 *
Chromatic cue (Brown-green)	2.577	0.627	4.108	$< 1.0 \times 10^{-4}$ ***
Interaction	2.629	4.357×10^5	0.00	1.000

* $P < 0.05$; *** $P < 0.001$

Table S3. GLMM results for whether each clay model was attacked (without the interaction term) similarly show that the chromatic cue was more influential than the achromatic cue

Variable	β	SE	Z	P
Intercept	0.414	0.281	1.475	0.140
Achromatic cue (Dull)	1.129	0.394	2.863	< 0.01 **
Chromatic cue (Brown-green)	3.002	0.609	4.928	< 1.0×10^{-8} ***

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$