

**Response of flower visitors to the morphology and color of crab spiders in
a coastal environment of the Gulf of Mexico**

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Supplementary material

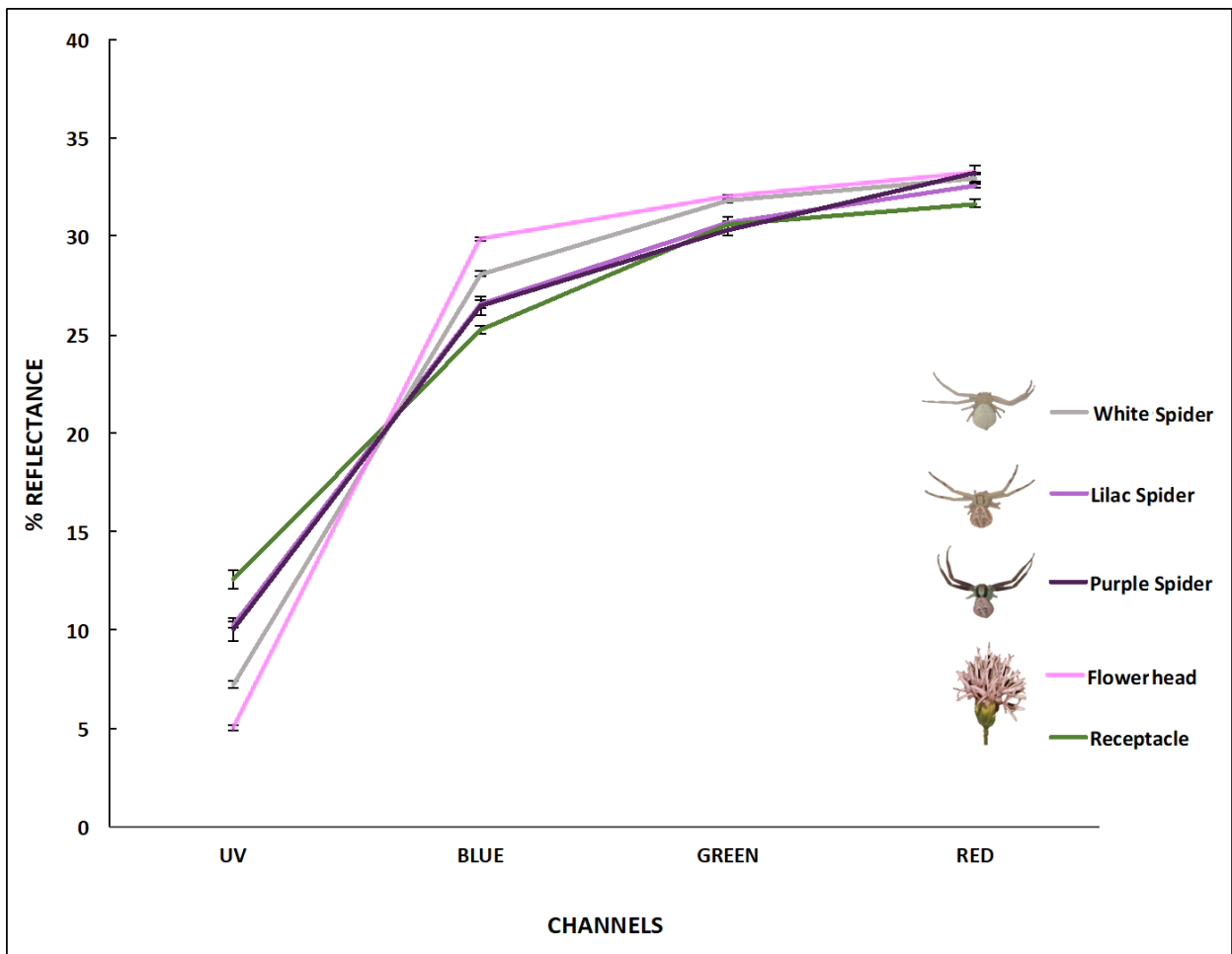


Figure S1. Percentage reflectance of white, lilac, and purple *M. dubia* spiders and the flowerheads and receptacle of *P. lindenii* plants in the UV, Blue, Green, and Red channels obtained from multispectral images taken with a full spectrum camera (See: Rodríguez-Morales, Rico-Gray, García-Franco, Ajuria-Ibarra, Hernández-Salazar, Robledo-Ospina et al., 2018 for details of the methodology)

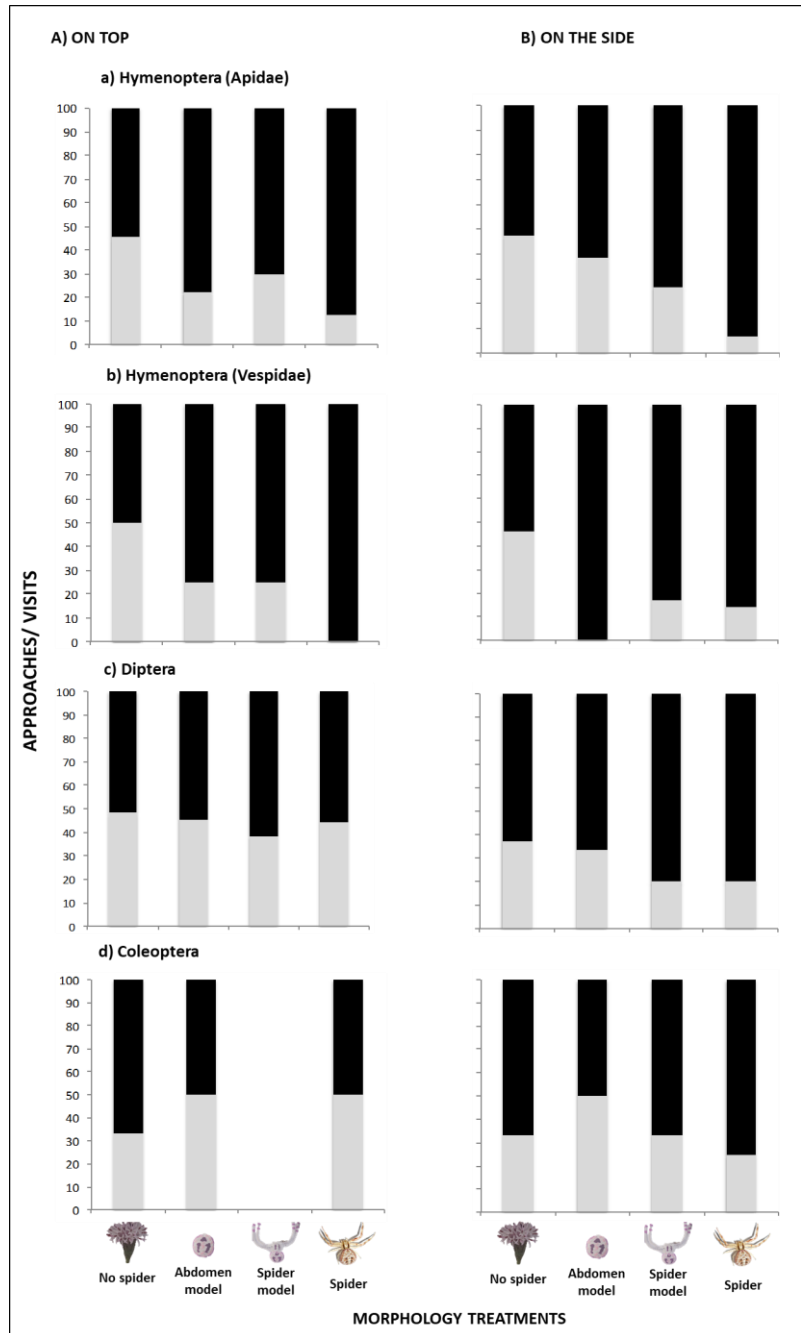


Figure S2. Approaches and visits to morphology treatments of *Mecaphesa dubia* spiders placed (A) on top and (B) on the side of flowerheads of *Palafoxia lindenii* made by the insect taxonomic groups: (a) Hymenoptera (Apidae), (b) Hymenoptera (Vespidae), (c) Diptera and (d) Coleoptera. Approaches are represented in black and visits in gray in each bar.

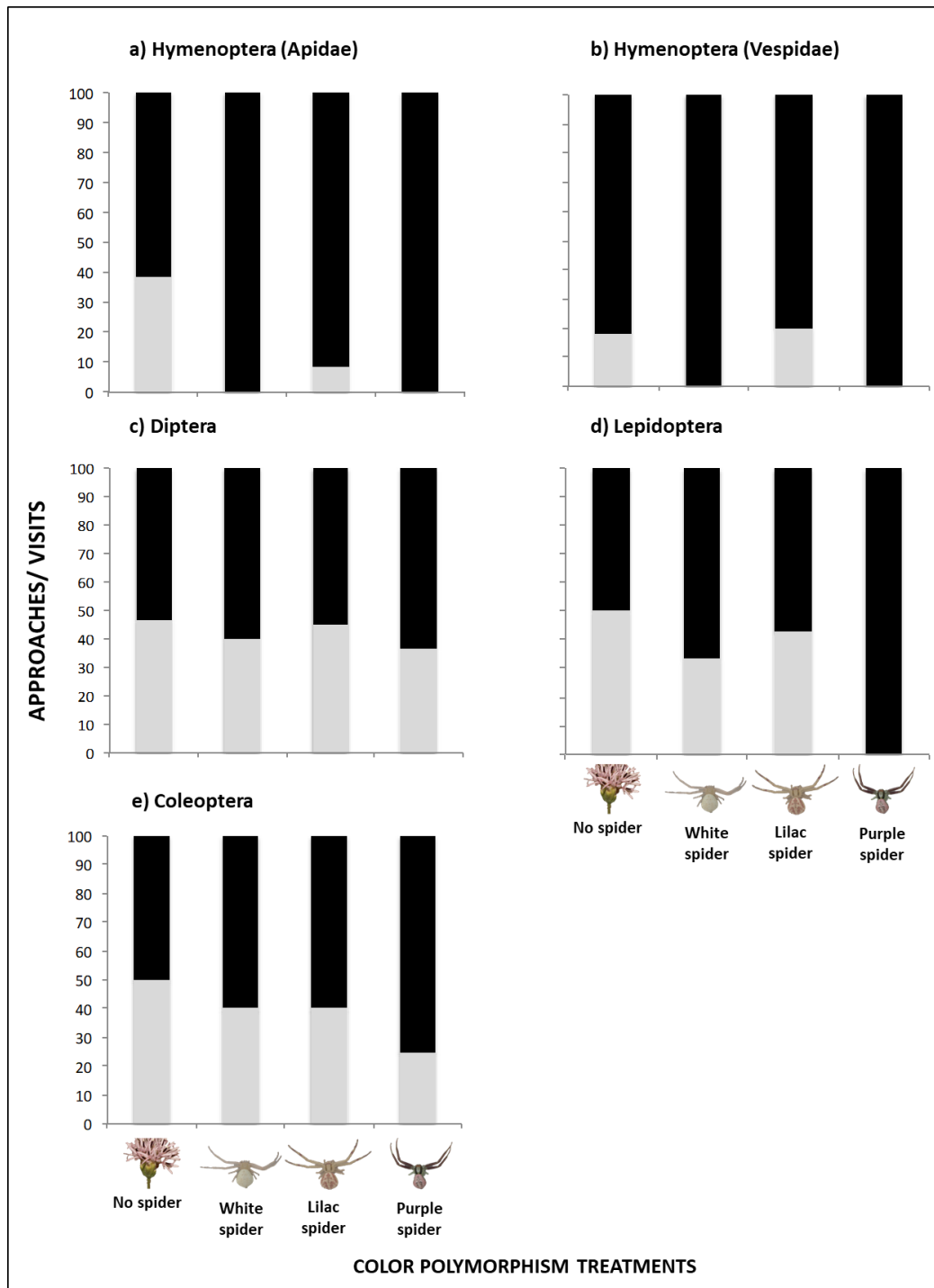


Figure S3. Approaches and visits of the taxonomic groups: (a) Hymenoptera (Apidae), (b) Hymenoptera (Vespidae), (c) Diptera, (d) Lepidoptera and (e) Coleoptera to color polymorphism treatments of *Mecaphesa dubia* spiders placed on top of flowerheads of *Palafoxia lindenii*. Approaches are represented in black and visits in gray in each graph.

Table S1. Number of visits and approaches (mean \pm standard error) to *P. lindenii* flowerheads by the different taxonomic groups of flower visitors as a response to the morphology of *M. dubia* spiders located on top and on the side of the flowerheads. The total number of visits and approaches is shown in parentheses.

Spiders placed on top of flowerheads		
Taxonomic group	Visit	Approaches
	mean \pm standard error (n)	mean \pm standard error (n)
Hymenoptera (Apidae)	0.12 \pm 0.03 (16)	0.13 \pm 0.03 (17)
Hymenoptera (Vespidae)	0.05 \pm 0.02 (7)	0.07 \pm 0.02 (9)
Diptera	0.25 \pm 0.05 (33)	0.05 \pm 0.02 (7)
Lepidoptera	0.07 \pm 0.02 (10)	–
Coleoptera	0.03 \pm 0.01 (5)	0.007 (1)
Spiders placed on the side of flowerheads		
Hymenoptera (Apidae)	0.23 \pm 0.08 (38)	0.16 \pm 0.04 (26)
Hymenoptera (Vespidae)	0.05 \pm 0.02 (8)	0.07 \pm 0.02 (12)
Diptera	0.07 \pm 0.02 (12)	0.13 \pm 0.02 (21)
Lepidoptera	–	–
Coleoptera	0.03 \pm 0.01 (5)	0.03 \pm 0.02 (6)

Table S2. Number of visits and approaches (mean \pm standard error) to *P. lindenii* flowerheads by the different taxonomic groups of flower visitors as a response to the color of *M. dubia* spiders located on top the flowerheads. The total number of visits and approaches is shown in parentheses.

Taxonomic group	Visit	Approaches
	mean \pm standard error (n)	mean \pm standard error (n)
Hymenoptera (Apidae)	0.12 \pm 0.04 (16)	0.28 \pm 0.05 (37)
Hymenoptera (Vespidae)	0.02 \pm 0.01 (3)	0.19 \pm 0.04 (25)
Diptera	0.28 \pm 0.06 (36)	0.09 \pm 0.02 (12)
Lepidoptera	0.15 \pm 0.06 (20)	0.06 \pm 0.02 (8)
Coleoptera	0.07 \pm 0.02 (10)	0.03 \pm 0.01 (4)

Table S3. Results of the GLM analyzing the response of flower visitors to the morphology of *Mecaphesa dubia* spiders (models and real spiders) on flowerheads of *Palafoxia lindenii*. Number of visits and approaches are presented as a function of taxonomic group, location (top and side), morphology treatment (abdomen model, spider model, spider, and no spider), and their interactions. Taxonomic groups include Hymenoptera (Apidae) and Dipetera.

Visits				
Interactions	ChiSquare	DF	Prob>ChiSq	
Morphology	45.094	3	<0.0001	
Location	0.4387	1	0.5077	
Taxonomic group	0.8193	1	0.3654	
Morphology × Location	4.0909	4	0.2518	
Morphology × Taxonomic group	12.623	4	0.0055	
Location × Taxonomic group	16.724	2	<0.0001	
Morphology × Location × Taxonomic group	2.7293	5	0.4353	
Approaches				
Interactions	ChiSquare	DF	Prob>ChiSq	
Morphology	13.721	3	0.0033	
Location	3.3365	1	0.0677	
Taxonomic group	3.193	1	0.0739	
Morphology × Location	1.2276	4	0.7464	
Morphology × Taxonomic group	2.6689	4	0.4455	
Location × Taxonomic group	1.7141	4	0.1905	
Morphology × Location × Taxonomic group	1.1473	5	0.7657	

Table S4. Results of the GLM analyzing the response of flower visitors to the color polymorphism of *Mecaphesa dubia* spiders on flowerheads of *Palafoxia lindenii*. Number of visits and approaches are presented as a function of taxonomic group, spider color treatment (white, lilac, purple, and no spider), and their interactions. Taxonomic groups include Hymenoptera: Vespidae and Vespidae, Lepidoptera, Coleoptera, and Diptera.

Visits				
Interactions	ChiSquare	DF	P	
Color polymorphism	-40.247	639	<0.0001	
Taxonomic group	37.563	632	<0.0001	
Color polymorphism × Taxonomic group	-24.902	632	0.01529	
Approaches				
Interactions	ChiSquare	DF	P	
Color polymorphism	-2.3693	635	0.4994	
Taxonomic group	-42.826	639	<0.0001	
Color polymorphism × Taxonomic group	-16.544	632	0.1676	