

*This supplement accompanies the article*

**Quantifying patterns of fish herbivory on Palmyra Atoll (USA),  
an uninhabited predator-dominated central Pacific coral reef**

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**Supplement.** Species-specific foraging selectivity and species-specific patterns of herbivorous fish biomass

Table S1. Selectivity indices based on availability of each of the 5 substrate types calculated for each species of fish and categorized by habitat type. Indices >0.2 (in **bold**): more frequent selection than expected by random chance. CCA: crustose coralline algae. Surgeonfish: *Acanthurus* spp., *Ctenochaetus* spp.; Parrotfish: *Calotomus carolinus*, *Chlorurus* spp., *Scarus* spp.

Habitat	Fish type		Substrate type				
	Family	Fish species	Live coral	CCA	Mixed turf	<i>Halimeda</i> spp.	Foliose macroalgae
Reef terrace	Surgeonfish	<i>A. blochii</i>	0.00	0.02	0.10	<b>0.33</b>	<b>0.55</b>
		<i>A. lineatus</i>	0.00	0.01	<b>0.79</b>	0.02	0.18
		<i>A. maculiceps</i>	0.00	0.00	0.00	1.00	0.00
		<i>A. nigricans</i>	0.00	0.01	<b>0.75</b>	0.03	<b>0.21</b>
		<i>A. triostegus</i>	0.00	0.00	<b>0.90</b>	0.00	0.09
		<i>C. striatus</i>	0.00	0.02	<b>0.66</b>	0.20	0.12
	Parrotfish	<i>C. carolinus</i>	0.00	0.01	0.03	0.14	<b>0.82</b>
		<i>C. microrhinos</i>	0.00	0.02	<b>0.82</b>	0.02	0.14
		<i>C. sordidus</i>	0.00	0.04	<b>0.57</b>	0.09	0.31
		<i>S. frenatus</i>	0.00	0.02	<b>0.76</b>	0.07	0.15
		<i>S. oviceps</i>	0.00	0.00	<b>0.87</b>	0.03	0.10
		<i>S. rubroviolaceus</i>	0.00	0.01	<b>0.65</b>	0.06	<b>0.28</b>
		<i>S. schlegeli</i>	0.00	0.00	0.04	<b>0.96</b>	0.00
<i>S. spinus</i>	0.00	0.00	<b>0.97</b>	0.00	0.03		
Fore reef	Surgeonfish	<i>A. blochii</i>	0.00	0.00	0.08	0.17	<b>0.75</b>
		<i>A. nigricans</i>	0.00	0.02	<b>0.59</b>	0.02	<b>0.37</b>
		<i>A. olivaceus</i>	0.01	0.00	<b>0.22</b>	0.06	<b>0.71</b>
		<i>C. cyanocheilus</i>	0.00	0.03	<b>0.29</b>	0.14	<b>0.54</b>
		<i>C. marginatus</i>	0.00	0.02	<b>0.27</b>	0.03	<b>0.68</b>
		Parrotfish	<i>C. carolinus</i>	0.00	0.00	0.00	<b>1.00</b>
	<i>C. sordidus</i>		0.01	0.06	<b>0.70</b>	0.16	0.07
	<i>S. frenatus</i>		0.02	0.03	<b>0.78</b>	0.11	0.06
	<i>S. globiceps</i>		0.00	0.01	<b>0.97</b>	0.02	0.00
	<i>S. oviceps</i>		0.00	0.02	<b>0.86</b>	0.01	0.10
	<i>S. psittacus</i>		0.00	0.00	0.02	<b>0.98</b>	0.00
	<i>S. rubroviolaceus</i>		0.05	0.02	<b>0.53</b>	<b>0.28</b>	0.10

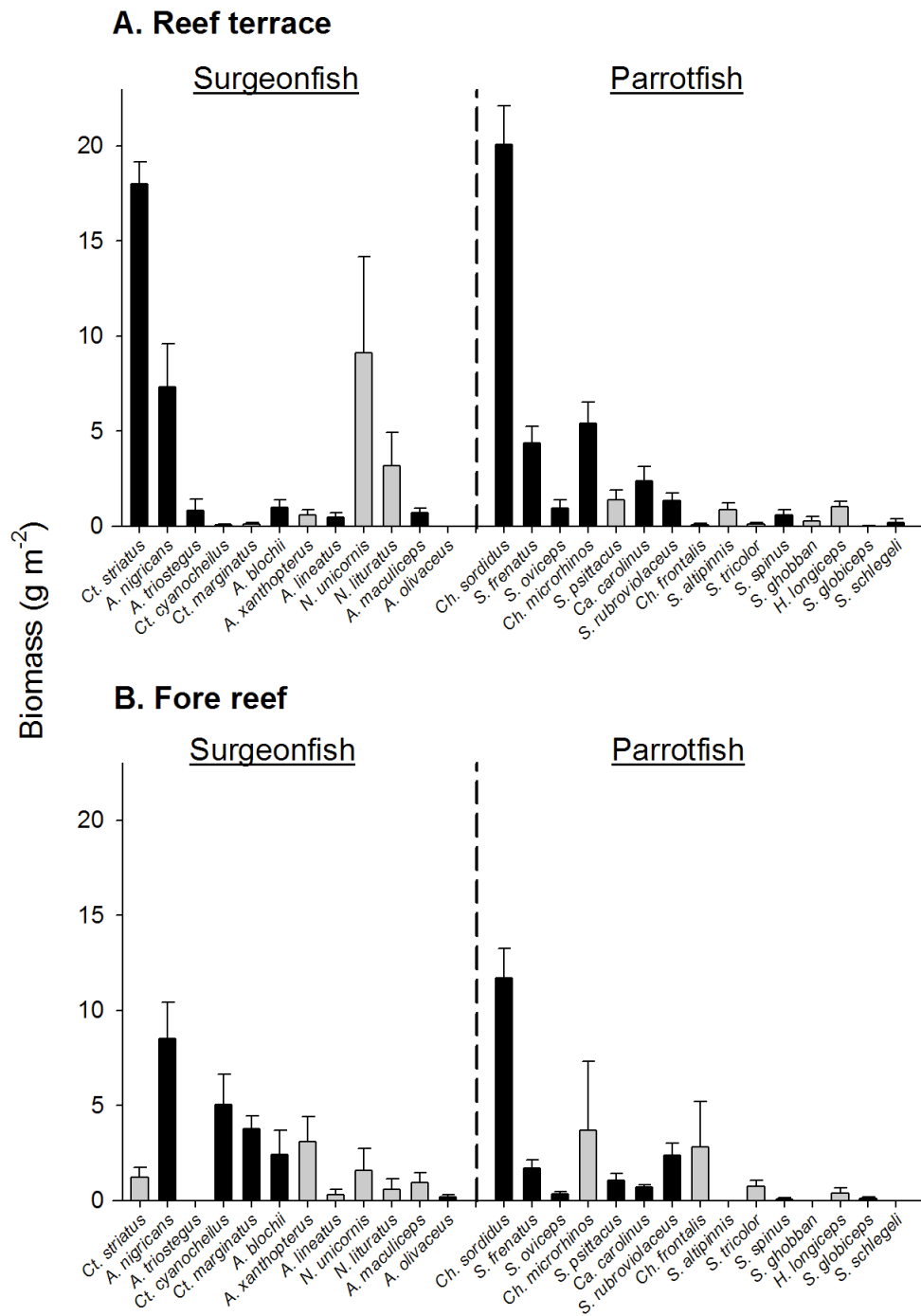


Fig. S1. Biomass ( $\text{g m}^{-2}$ ) of focal herbivorous fish species on (A) the reef terrace and (B) the fore reef of Palmyra Atoll. Error bars:  $\pm 1$  SE. Species are arranged from most abundant to least abundant for surgeonfish and parrotfish, based on their global mean abundance at Palmyra. Black bars: focal species selected for foraging behavior observations in a particular habitat. Gray bars: species that were not followed. Surgeonfish: *Acanthurus* spp., *Ctenochaetus* spp., *Naso* spp.; Parrotfish: *Calotomus carolinus*, *Chlorurus* spp., *Scarus* spp., *Hipposcarus longiceps*