

**Students names:** \_\_\_\_\_

**Activity 1:** Working as a group fill in the missing information "Trophic Mode", "Trophic Level", "Stressors" and "Predicted Impact on Reef". Choose your answers from the options at the bottom of the table. For Trophic mode and Trophic level only one term can be selected; for the the other columns multiple selections may fit. Use the lecture material, including the trophic pyramid diagram, to complete this table.

A:  $90 \leq 100\%$

B:  $80 \leq 90\%$

C:  $70 \leq 80\%$

D:  $60 \leq 70\%$

Taxa	Trophic Mode	Trophic Level / Ecological Role	Stressors that <u>Directly</u> Impact Organisms (besides trophic shifts)	Predicted Impact on Reef ( <u>direct</u> and <u>indirect</u> effects)
zooxanthellae in coral (photosynthesizers)		primary producer		
coral without zooxanthellae (eats herbivores)				
parrot fish (eats coral w/ zooxanthellae)	herbivore	primary consumer	overfishing and harmful fishing practices	trophic shifts cause unbalance in consumer communities, no new creation of recolonizable space on reef, overgrowth by filamentous algae
barracuda (eats herbivores)				
reef shark (eats carnivores)			disease and overfishing	

	Trophic Modes (pick one for each, best fit)	Trophic Level / Ecological Role	Known Stressors (There are many correct answers. Choose TWO)	Predicted Impact on Reef ( <u>direct</u> and <u>indirect</u> effects)
Available Terms	<ul style="list-style-type: none"> <li>- autotroph</li> <li>- herbivore</li> <li>- piscivore</li> <li>- carnivore</li> </ul>	<ul style="list-style-type: none"> <li>- primary producer</li> <li>- primary consumer</li> <li>- secondary consumer</li> <li>- tertiary consumer</li> </ul>	<ul style="list-style-type: none"> <li>- overfishing / harmful fishing practices</li> <li>- pollution (eutrophication)</li> <li>- disease</li> <li>- thermal stress</li> <li>- salinity change (sessile versus mobile)</li> <li>- sea-level rise (dependence on light)</li> <li>- ocean acidification (calcifying organisms)</li> </ul>	<ul style="list-style-type: none"> <li>- stunted coral growth / reef growth</li> <li>- no new creation of recolonizable space on reef</li> <li>- trophic shift causing unbalance in consumer</li> <li>- overgrowth by filamentous algae</li> </ul>