

Species Name	Groups									
	A. Papp & Scott & Matis	B. Sola & Nohua	C. Singh & Jayden	D. Eva + Melissa	E. Kai + Marcella	F. Kyle + Aze	G. Kathar + Bridget	H. Matthew + Kai	I. Charlotte + Gabriel	
Orange Tail Surge wrasse ( <i>Thalassoma daniellii</i> )	X	X		X	X	X		X	X	
Orange Surge wrasse ( <i>Thalassoma daniellii</i> )	X	X	X	X	X	X	X	X	X	
Thraupin Butterfly Fish ( <i>Chaetodon ornatissimus</i> )		X	X	X	X	X	X	X	X	
Whitetail damselfish ( <i>Chromis leucostictus</i> )	X	X	X	X	X		X	X	X	
Lanternhead wrasse ( <i>Parascorpaena rubra</i> )		X			X					
Butterhead parrotfish ( <i>Chromis viridis</i> )		X			X			X		
Blue-Green Chromis ( <i>Chromis viridis</i> )		X	X		X		X	X	X	
Guil Moray ( <i>Gymnocheilus</i> )									X	
Spotfin parrotfish ( <i>Scorpaenopsis</i> )	X									
Raccoon Tail Butterflyfish ( <i>Chaetodon lunulatus</i> )			X					X		
Bonfish ( <i>Albula glaucopis</i> )	X	X	X			X				
Fringed wrasse ( <i>Chromis</i> )	X		X		X	X				
Whitetail Blue Damsel ( <i>Chromis</i> )	X	X	X	X	X	X		X	X	
Blueshank Cleaner ( <i>Parascoloplos</i> )			X		X					
Blackhead Surge wrasse ( <i>Thalassoma</i> )		X								
White-Banded Surge wrasse ( <i>Thalassoma</i> )			X	X						
Solar Wrasse ( <i>Thalassoma</i> )						X				
Common Parrotfish ( <i>Scorpaenopsis</i> )						X				
Dusky Farmerfish ( <i>Stegastes</i> )			X			X			X	
Howeomoe Grouper ( <i>Lutjanus</i> )								X		
Yellow Margin wrasse ( <i>Lutjanus</i> )								X		
Sergeant major ( <i>Acanthurus</i> )								X	X	
Striped Surge wrasse ( <i>Thalassoma</i> )						X	X			
Yellowhead Surge wrasse ( <i>Thalassoma</i> )								X		
	X									

note: we couldn't identify 2 fish

























Species Name	student name (pick a species)	Family Name	Notes on function of this group	Source		
Clown Fish (Amphiprion chrysopterus 'Atoti)	sofia	Pomacentridae	<ul style="list-style-type: none"> <li>- contribute to nutrient cycling - Contribute to the maintenance of an ecosystem by cycling nutrients as well as controlling the population of algae and smaller animals (invertebrates)</li> <li>- Algae: helps control population and overgrowth. This prevents algae from overcoming the corals</li> <li>- Tend to patches of coral</li> <li>- Pomacentridae serve as a food source for many fish in a coral reef ecosystem</li> <li>- Symbiotic relationship with sea anemones: provide protection by removing parasites and the anemones also serve as a shelter to protect the clown fish</li> </ul>	<p><a href="https://marinesanctuary.org/blog/sea-anemone-and-clownfish-behind-the-scenes-of-an-iconic-friendship/">https://marinesanctuary.org/blog/sea-anemone-and-clownfish-behind-the-scenes-of-an-iconic-friendship/</a></p> <p><a href="https://news.cnr.fr/articles/the-secret-life-of-a-clownfish">https://news.cnr.fr/articles/the-secret-life-of-a-clownfish</a></p> <p><a href="https://www.tetiarosociety.org/island/fish">https://www.tetiarosociety.org/island/fish</a></p>		
Convict surgeonfish (Acanthurus trigostegus Manini)	kedhar	acanthuridae	Adults live on offshore reefs but larvae are carried closer to shore to develop into juveniles. They are grazers and planktivores. Herbivores on coral reefs prevent mats of algae and other photoautotrophs from smothering the corals. Often use the reef for cover and their feces provide nutrients for corals.			
Threadfin Butterfly Fish (Chaetodon auriga)	Nohea	Chaetodontidae	Coral consumption (corallivory) is a unique adaptation as only 128 fish species eat corals, out of the 5000 or more fish species recorded from coral reefs, and 61% belong to a single-family, the butterflyfish. They are able to use their elongated snouts in order to scrape the surface of coral to obtain algae and other small prey. In addition, butterflyfish are important in reducing the amount of algae that accumulates on coral. Butterflyfish and their eggs and larvae are important food items for marine predators.	<a href="https://animaldiversity.org/accounts/Acanthuridae/">https://animaldiversity.org/accounts/Acanthuridae/</a>		
Whitetailed damselfish (*Dascyllus aruanus 'Atoti)	Bridget	Pomacentridae	They live in groups up to 30 individuals finding shelter within the coral. They will venture outside the coral to forage algae and plankton playing an important role in transferring energy to the reef.			
Lemonpeel Angelfish (Centropyge flavissima Pārahārāha)	Kylie	Pomacentridae	- Is protogynous hermaphrodite; Feeds on filamentous algae; omnivore; nips at coral polyps; contributes to nutrient cycling and keeps microalgae growth in check; transfers energy through the trophic levels <3; semi aggressive; are all born as females and the most dominant turns male			
Bullethead parrotfish (Chlorurus sordidus Pa'ati pa'a pa'a auahi)	Bridget	Scaridae	They eat the algae off of the corals which leads to reef erosion and sand formation. Since they scrape the green algae off of the corals it can also clean them.			
Blue-Green Chromis (Chromis viridis 'Atoti)	alex	Pomacentridae	they eat algae and plankton, and also live by the coral so they play an important role in transferring energy through the trophic levels, as they are preyed on by larger fish and sharks			
Giant Moray (Gymnothorax javanicus)	Jacob	Muraenidae	Top predator, eats fish that come near the rock crevice it lives in. Due to its large size and strong jaw it makes for a good predator. By controlling the distribution, abundance and diversity of prey, they regulate lower species in the food chain (trophic cascades).			
Spotted pufferfish (Arothron meleagris Huehue 'ere' ere)	Flynn	Tetraodontidae	Pufferfish are important prey for a number of marine predators including larger fish and sharks. Nutrients from their waste play a vital role in supporting the growth of marine plants and phytoplankton, which are the foundation of the marine food chain.			
Redfin/Oval Butterflyfish (Chaetodon lunulatus)			eats coral polyps, algae and small invertebrates maintains the health of coral reefs. There is a protective layer of mucus that covers the coral to trap food with the sticky mucus properties. This is the part of the Coral that Redfin butterflyfish feed on. Their relationship to the coral is symbiotic since they prevent coral overgrowth while gaining nutrients.			
Bonefish (Albula glossodonta 'io'io)	Mistie	Albulidae	Important to food chain. They feed on many small mollusks, small crabs, fish, and shrimps -- keeping population in check. As prey, they provide a food source for their predators like sharks and barracudas.			
Fringelip mullet (Crenimugil crenilabris Tehu)	Marcella	Mugilidae	The Mugilidae family are nearshore pelagic fishes. Fringelip mullets are important for cycling nutrients by eating detritus and plankton and converting it into more accessible resources for predators. They also eat crustaceans. They feed by running their mouth through the sediment at the bottom, using their fringelip to filter for food particles.	<a href="https://www.blueocean-eg.com/blog/the-fringelip-mullet">https://www.blueocean-eg.com/blog/the-fringelip-mullet</a>		

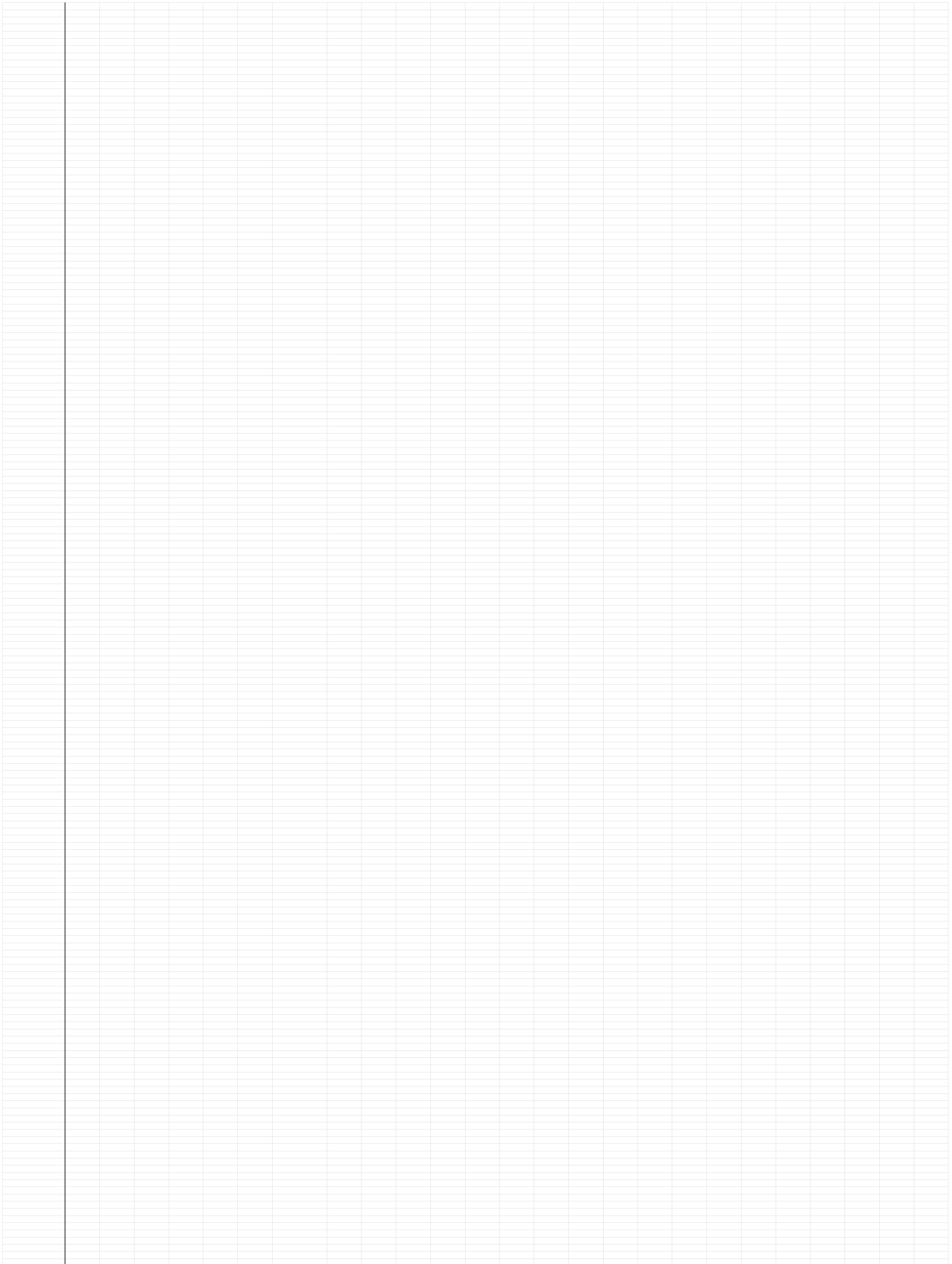
Yellowtail Damselfish	Melissa	Pomacentridae	According to PubMed, "Damselfishes play an important ecological role by affecting the structure of benthic and coraline communities and controlling algal diversity." So, these fish put energy and nutrients in their reef environments and show territorial behaviors towards other herbivores to protect their algal gardens. Damselfish are very important parts of a coral reef, however, their territorial behaviors harm the coral due to scaring off the algal cleaners of the reef.	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7326182/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7326182/</a>		
Bluestreak Cleaner Wrasse (Labroides dimidiatus—Po'ou)	charlotte	Labridae (Wrasses)	cleaner fish! engage in mutualistic activities with larger reef fish, setting up cleaning stations in the surface/pelagic zone and consuming algae, dead tissue buildup, + other detritus often directly off of other organisms. they are important contributors to parasite removal and control, improvement/maintenance of marine vertebrate health, and overall coral reef resilience via the numerous symbiotic relationships they maintain. they are a hermaphroditic fish, meaning that they are born male and mature into females later in life depending on their ecosystem's surroundings and species-wide social dynamic.	<a href="https://sustainableaquatics.com/sustainable-islands-fish/wrasses/bluestreak-cleaner/">https://sustainableaquatics.com/sustainable-islands-fish/wrasses/bluestreak-cleaner/</a>		
Blackstreak Surgeonfish (Acanthurus nigricauda)	Eva	Acanthuridae	The Acanthuridae family largely consists of zooplankton feeders, grazers, and browsers. The zooplankton feeders pursue and capture copepods, crustacean larvae, and pelagic eggs. They are also known to contribute to maintaining epilithic algal matrix biomass and prevent shifts from coral to algal dominance following disturbances.			
White-Banded Triggerfish (Rhinecanthus aculeatus)	Gobind	Balistidae	Balistidae are predators that control invertebrate populations and create balance in the ecosystem. This prevents overgrazing and regulates algal growth. Some species in the Balistidae family feed on algae, by grazing on algae covered surfaces they regulate algal growth. Balistidae also nip at corals, and by creating small pits or holes in the coral substrate, triggerfish can facilitate the settlement of coral larvae. Balistidae are also territorial and defend specific areas of the reef which contributes to the spatial organization of the ecosystem.			
Sixbar Wrasse (Thalassoma hardwicke)	Jayden	Labridae	The Labridae fish family, which includes species like the Sixbar Wrasse, contributes to the control of invertebrate populations, help maintain reef health, and participate in nutrient cycling. Additionally, some wrasse species engage in cleaning behavior, removing parasites from other fish, contributing to the overall well-being of the aquatic community.			
Common Parrotfish (Scarus psittacus)	Matthew	Scaridae	Parrotfish are colorful, tropical creatures that spend about 90% of their day eating algae off coral reefs. This almost-constant eating performs the essential task of cleaning the reefs which helps the corals stay healthy and thriving			
Dusky Farmerfish (Stegastes nigricans)	Kai	Pomacentridae	Pomacentridae hide within coral from predators, eating algae which helps transfer energy to the reef system. Some also tend gardens of filamentous algae but can also sometimes eat small invertebrates.	<a href="https://animaldiversity.org/accounts/Pomacentridae/">https://animaldiversity.org/accounts/Pomacentridae/</a>		
Honeycomb Grouper (Epinephelus merra Tarao)	Stephanie	Serranidae, sub-family Epinephelinae	- Carnivorous fish that are top-level predators and help to control the abundance of other fish - Some species are habitat engineers that excavate rock and sediment, providing shelter for other species - Egg concentrations during spawning events also provide fatty acids which support multiple trophic levels			
Yellow-Margined Snapper (Lutjanus fulvus)	Gobind	Lutjanidae	The family Lutjanidae, including snappers like Lutjanus fulvus, plays a crucial role in marine ecosystems by contributing to biodiversity, regulating prey populations, transferring energy within the food web, influencing coral reef health, and participating in various behavioral interactions.			
Sergeant major (Abudefduf saxatilis), found be Terenui (the goat)	Kai	Pomacentridae	Pomacentridae hide within coral from predators, eating algae which helps transfer energy to the reef system. Some also tend gardens of filamentous algae but can also sometimes eat small invertebrates.			
Striated Surgeonfish (Ctenochaetus striatus)	Nohea	Acanthuridae	This family eat plants, generally algal mats on corals or plankton above the corals. Herbivores on coral reefs prevent mats of algae and other photoautotrophs from smothering the corals. Often use the reef for cover or hunt for plankton above the reef so their droppings provide nutrients for corals.			

Yellowbanded Pipefish Corythoichthys flavofasciatus	Jayden	Syngnathidae	The Syngnathidae family, which includes seahorses and pipefish like the Yellowbanded Pipefish, contributes to the greater ecosystem by playing a role in maintaining the balance of small invertebrate populations. They are known for their unique reproductive behavior, where males often carry and give birth to their offspring. This distinctive reproductive strategy can have implications for local food webs and biodiversity, influencing the distribution and abundance of various species in their habitat.			
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<b>Lagoon Use</b>	<b>Count</b>
<i>Tourism</i>	
Cruise Ship	2
Tour Boat	10
<i>Anchoring</i>	30
<i>Fishing</i>	2
<i>Seawalls</i>	1
<i>Navigation Poles</i>	10
<i>Boat Docks</i>	2