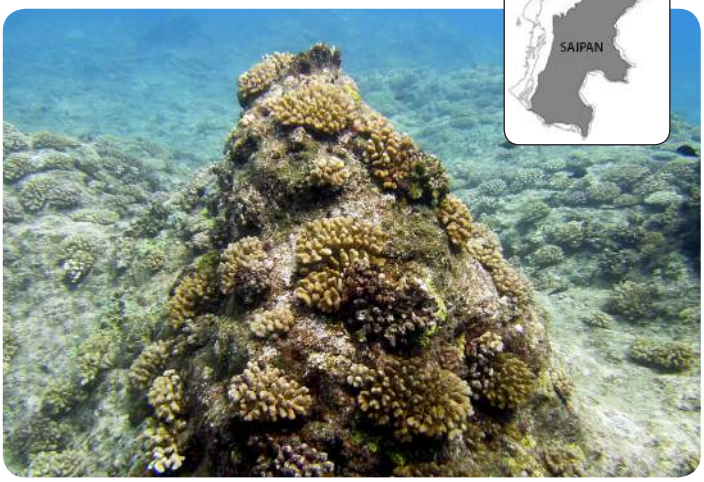
1 - Nanasu Reef, Saipan

Nanasu Reef is named for the *nanasu* plant (*Scaevola taccada*), which is common along the coastline of Saipan. Nanasu Reef is located within the Bird Island Marine Sanctuary. Nanasu Reef ranked the highest in coral recruitment and also received a high score for herbivore biomass, due in large part to the parrotfish seen here. The benthic substrate of the reef is roughly divided into 25% of each of these: live coral, pavement, turfing algae and rubble. Grazers/detritivores and scrapers/excavators make up >90% of the herbivorous fish community. The low presence of macroalgae could be due to the large number of herbivores found on the reef. This site boasted some of the largest fish seen on any survey including yellowlip emperors (*Lethrinus xanthochilus*) and blunthead parrotfish (*Chlorurus microrhinos*). This site did not meet any of the criteria we set to identify targets for various types of management actions. This site may warrant management attention for reasons distinct from the resilience assessment results.

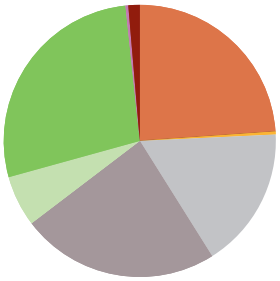


Analysis	Rank	Resilience Score	Macroalgae Cover	Bleaching Resistance	Coral Recruitment	Coral Diversity	Temperature Variability	Herbivore Biomass	Accessibility (wave exposure)	LBSP
Inter-Island	**1/78**	1.00	0.92	0.54	1.00	0.95	0.74	0.78	N/A - MPA	0.19
Intra-Island	**1/29**	1.00	0.92	0.63	1.00	0.95	0.77	0.79	N/A - MPA	0.19

Low (<avg - 1 SD) Med-Low (<avg and >avg - 1 SD) Med-High (>avg and <avg - 1 SD) High (>avg + 1 SD)

Low Med-High Med-Low High

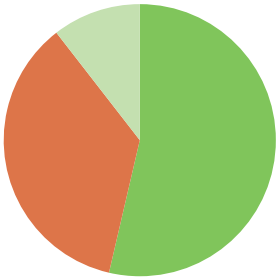
Benthic community



Live coral
Soft coral
Dead coral
Sand
Rubble
Pavement
Macroalgae
Turf algae
Other invertebrates
Crustose coralline algae

Observed coral species listed under the NMFS ESA listing of 2014: **NONE**.

Fish community

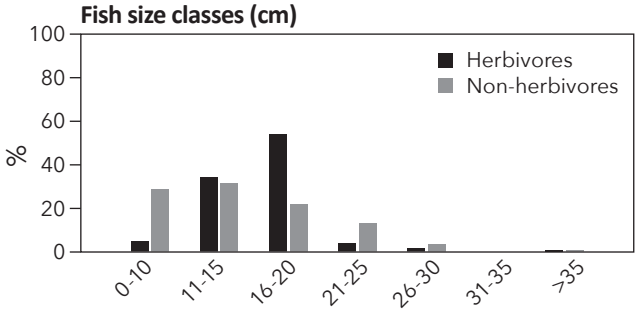


Herbivore Functional Groups (biomass in kg/ha)

Grazers / Detritivores (54.50)
Scrapers / Excavators (39.78)
Browsers (11.65)

Herbivorous fish (n = 168)
Non-herbivorous fish (n = 114)

Fish size classes (cm)



Coral Quads: *Acropora digitifera, Acropora gemmifera, Acropora surculosa, Acropora tenuis, Astreopora myriophthalma, Favia matthaii, Favia stelligera, Favites abdita, Favites russelli, Goniastrea retiformis, Leptastrea purpurea, Leptastrea transversa, Leptoria Phrygia, Montastrea curta, Montipora foveolata, Montipora grisea, Montipora hoffmeisteri, Montipora verrilli, Pavona duerdeni, Pavona varians, Pocillopora elegans, Pocillopora meandrina, Pocillopora verrucosa, Porites lichen, Porites vaughani, Psammocora haimeana*

Coral Swim: *Acropora humilis, Acropora monticulosa, Cyphastrea chalcidicum, Favia favus, Goniastrea edwardsi, Millepora platyphyllia, Millepora tuberosa, Platygyra pini, Pocillopora eydouxi, Pocillopora woodjonesi, Porites lobata, Stylophora mordax*

Fish SPCs: *Acanthurus blochii, Acanthurus lineatus, Acanthurus nigricans, Acanthurus nigrofuscus, Balistapus undulatus, Balistoides conspicillum, Centropyge flavissima, Cephalopholis argus, Cephalopholis urodeta, Chaetodon auriga, Chaetodon ephippium, Chaetodon punctatofasciatus, Chaetodon quadrimaculatus, Chaetodon reticulatus, Chlorurus microrhinos, Chlorurus sordidus, Coris aygula, Ctenochaetus striatus, Dascyllus trimaculatus, Forcipiger longirostris, Hemitaurichthys polylepis, Hemitaurichthys thompsoni, Heniochus chrysostomus, Lethrinus xanthochilus, Melichthys niger, Melichthys vidua, Naso hexacanthus, Naso lituratus, Parupeneus multifasciatus, Scarus forsteni, Scarus oviceps, Scarus psittacus, Scarus rubroviolaceus, Sufflamen chrysopterum, Thalassoma amblycephalum, Thalassoma quinquevittatum, Zanclus cornutus*

Observers: S. McKagan, P. Houk, and S. Johnson