Corals Subject Review



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______ organisms are composed of hundreds to hundreds of thousands of individual animals.
 Individual coral animals are called ______.
 The mouth of individual coral animals is surrounded by a circle of ______.
 After food is consumed by corals, waste products are expelled through the ______.
 Time of day when most corals feed: ______
 To capture their food, corals use stinging cells called ______.
 Nematocysts are capable of delivering powerful, often lethal, _____.

algae El Niño anthropogenic elkhorn asexual encrusting atoll erosion barrier euphotic basal plate feed below fishing bleaching flat branching foliase broadcast food **buttress** fringing calcium carbonate habitats larvae calvx clear lunar massive cm colonial medicines crest metamorphose millions **CREWS**

mortality

mucous mushroom mutualistic nematocysts night photosynthesis phototaxis physical stress plants planulae pollution polyps poor predation productive recycling saline

seaward slope

mouth

species
stresses
sunset
synchronized
table
temperatures
tentacles
theca
tidal emersions
tourism
toxins
weather
zooplankton

zooxanthellae

sessile

digitate

8. A coral's prey ranges in size from nearly microscopic animals called to small fish.
9. Many corals collect fine organic particles in films and strands of
10. Most reef-building corals contain photosynthetic algae called which live in their tissues.
11. Corals and algae have a relationship.
12. Symbiotic algae supply corals with glucose, glycerol, and amino acids, which are the products of
13. Tropical ocean waters are generally [rich or poor] in nutrients.
14. The relationship between the algae and coral polyp facilitates a tight of nutrients, which is the driving force behind the growth and productivity of coral reefs.
15. The unique and beautiful colors of many stony corals are caused by
16 can cause coral polyps to expel their algal cells.
17. Coral occurs when coral polyps expel thei algal cells, causing the colony to take on a stark white appearance.
18. Because of their intimate relationship with symbiotic algae, reef-building corals respond to the environment lik
19. Because their algal cells need light for photosynthesis, recorals require water.
20. Although coral reefs require nutrient-poor water, they are among the most and diverse marine environments.

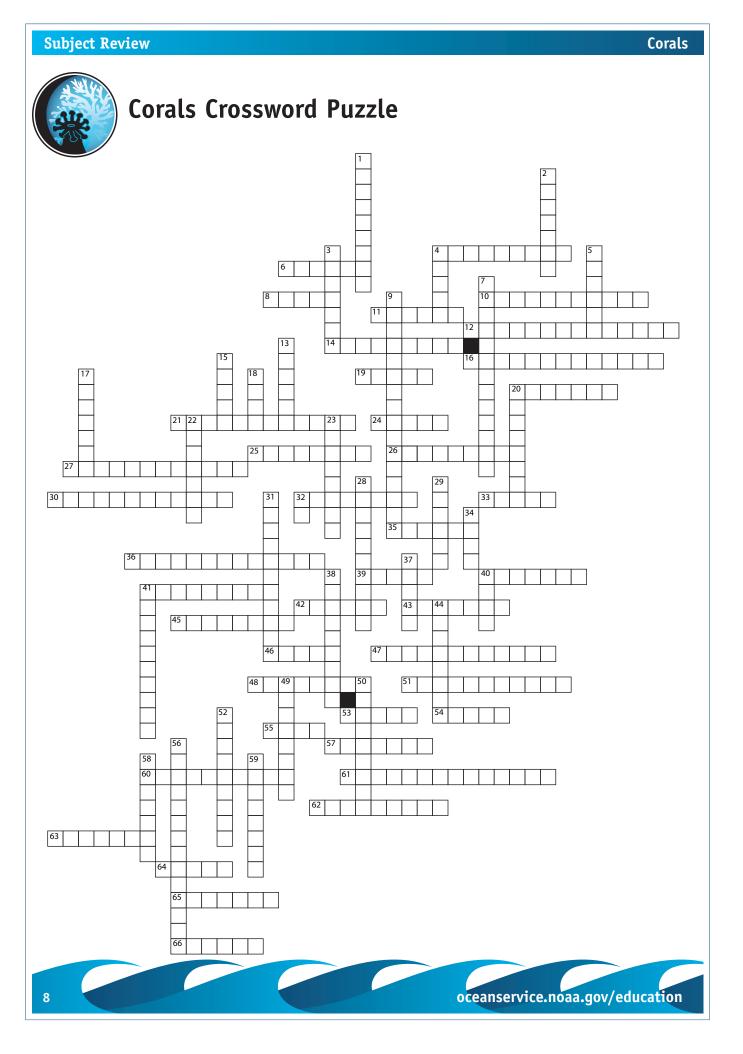
21. Reef	s form when polyps secrete skeletons of
hund	hey grow, coral reefs provide structural for dreds to thousands of different vertebrate and invertespecies.
tion	skeletons of stony corals are secreted by the lower port of the polyp. This process produces a cup, orhich the polyp sits.
	walls surrounding the corals' skeletal cup are called
	floor of the corals' skeletal cup is called the
	is a system of specially designed buoys that sure conditions that may cause bleaching on coral reefs
their skele	on polyps are physically stressed, they contract into calyx so that virtually no part is exposed above their eton. At other times, polyps extend out of the calyx. It polyps extend the farthest when they
28	corals have primary and secondary branches.
	corals look like fingers or clumps of cigars and no secondary branches.
	corals form table-like structures and often have l branches.
31	coral has large, flattened branches.
	corals have broad plate-like portions rising in rl-like patterns.
33	corals grow as a thin layer against a substrate.
	corals are ball-shaped or boulder-like and may nall as an egg or as large as a house.

35.	corals resemble the attached or unattached tops of mushrooms.
36.	Coral reefs begin to form when free-swimming attach to submerged rocks or other hard surfaces along the edges of islands or continents.
37.	reefs project seaward directly from the shore, forming borders along the shoreline and surrounding islands.
38.	reefs border shorelines, but are separated from their adjacent land mass by a lagoon of open, often deep water.
39.	An is formed when a reef has developed around a volcanic island that subsides completely below sea level while the coral continues to grow upward.
40.	Massive corals have growth rates of 0.3 to 2 per year
41.	Bottom topography, depth, wave and current strength, light, temperature, and suspended sediments act on coral reefs to create horizontal and vertical zones of living species. The reef is usually the zone closest to shore, followed by the reef or algal ridge, then the zone, and finally the
42.	Reef-building corals cannot tolerate water temperatures [above or below] 18° Celsius (C).
43.	Most reef-building corals require very water.
44.	Reef-building corals' requirement for high light explains why most reef-building species are restricted to the zone, the region in the ocean where light penetrates to a depth of approximately 70 meters.
45.	As adults, almost all corals are, which means that they remain on the same spot on the sea floor for their entire lives

46.	In reproduction, new polyps bud off from par-
	ent polyps to expand or begin new colonies.
47.	In sexual reproduction, coral eggs and sperm join to form free-floating, or planktonic, larvae called
48.	Species that release massive numbers of eggs and sperm into the water to distribute their offspring over a broad geographic area are called spawners.
49.	The time between planulae formation and settlement is a period of exceptionally high among corals.
50.	Along many reefs, spawning occurs as a event, when all the coral species in an area release their eggs and sperm at about the same time.
51.	The long-term control of spawning may be related to temperature, day length and/or rate of temperature change (either increasing or decreasing). The short-term (getting ready to spawn) control is usually based on cues.
52.	The final release of gametes during spawning is usually based on the time of
53.	. Planulae exhibit positive
54.	Once planulae settle on the bottom, they into polyps and form colonies that increase in size.
55.	Coral reefs support more per unit area than any other marine environment.
56.	Scientists estimate that there may be of undiscovered species of organisms living in and around reefs. [how many?]
57.	Coral reef biodiversity is considered key to finding new for the 21st century.

58.	Healthy reefs contribute to local economies through
59.	In developing countries, coral reefs provide critical resources for tens of millions of people.
	Coral reefs buffer adjacent shorelines from wave action and prevent, property damage and loss of life.
61.	Natural damage to coral reefs frequently occurs because of
62.	Slow-growing corals that are damaged by storms may be overgrown by before they can recover.
63.	Reefs also are threatened by that can cause shallow water coral heads to overheat and dry out.
64.	Increased sea surface temperatures, decreased sea level and increased salinity from altered rainfall can all result from weather patterns such as
65.	Corals are vulnerable to by fishes, marine worms, barnacles, crabs, snails and sea stars.
	Human-caused, or activities are major threats to coral reefs.
	One of the most significant human-caused threats to reefs is
68.	When some contaminants enter the water, nutrient levels can increase, promoting the rapid growth of and other organisms that can smother corals.
69.	In many areas, coral reefs are destroyed when cyanide or dynamite are used for activities.
70.	Coral diseases generally occur in response to biological, such as bacteria, fungi and viruses, and non-biological stresses, such as increased sea surface temperatures, ultraviolet radiation and pollutants.

71. Many scientists believe that the increased frequency of coral diseases over the last 10 years is related to deteriorating water quality and increased ______ that may allow for the proliferation and colonization of microbes.



Across

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