

Identifying Key Marine Creatures in the Keramas

Corals

Fish

Turtles and Clams

Corals

The Keramas' coral reefs have an area equivalent to over 90 soccer fields and are home to more than 60 percent of all the reef-building coral varieties in Japan. This list will help you identify the six most common kinds of stony or hard coral.

Table Corals

Corals love sunlight because they get part of their energy from photosynthesis. Table corals grow into large horizontal plates that resemble their namesake. They act like solar panels, exploiting their large surface area to soak up sunlight.

Massive Corals

Massive corals grow in rounded lumps that resemble balls or boulders. Unlike certain other coral varieties, massive corals can survive rough seas unharmed thanks to their simple and robust shape. Although they grow slowly, they can reach—literally—the size of a house.

Branching Corals

As the name suggests, these corals are characterized by thick branches that grow upward or out to the sides. They tend to be found on the top of reefs, reaching for the sun. They are delicate and easily damaged by violent waves or careless swimmers.

Encrusted Corals

These fast-establishing corals grow in a thin layer across rocky surfaces or substrates, spreading outward rather than upward. Their low profile makes them very resilient to storms.

Foliose Corals

Foliose means “having a lobed, leaf-like shape” and these corals can resemble anything from a many-petalled flower to a head of lettuce. Like table corals, foliose corals have a large surface area for catching sunlight, while the spaces between the leaves provide excellent shelter for small marine creatures.

Digitate Corals

With a name derived from the Latin *digitus*, digitate corals resemble upward-pointing fingers. They are vertical, cylindrical, and round-ended and, unlike branching coral, have no secondary branches.

SUGGESTED PHOTO(S)

1. View of a reef (Hero image)
2. Table corals
3. Massive corals
4. Branching corals
5. Encrusted corals
6. Elkhorn corals
7. Foliose corals
8. Digitate corals

(I suggest we actually take pictures of the different corals at specific locations in the Keramas and add a caption naming the dive/snorkeling site. “Table corals at XXX dive site” etc.)

Fish

The Keramas are home to some 360 species of coral reef fish. Here are six of the most common—and one of the most spectacular.

Clownfish (*Pomacentridae*)

These fish are easily recognized because of their bright color (orange, yellow, black or red) with patches of white. They are sometimes called anemone fish because of their symbiotic relationship with sea anemones. Immune to the sea anemone’s stinging tentacles, the clownfish keeps it safe from predators and parasites, while the sea anemone provides the clownfish with shelter and food in return. The world’s most celebrated clownfish is, of course, Nemo from the 2003 Disney-Pixar animated feature, *Finding Nemo*.

Damselfish (*Pomacentridae*)

Damselfish are brightly colored—either one color or two strongly contrasting colors. They are deep-bodied with forked tails and lively, quick movements.

Butterflyfish (*Chaetodontidae*)

Butterfly fish get their name from their vividly colored and patterned bodies that resemble butterfly wings. They have deep, narrow bodies. The dark bands across their eyes and the

dots on their flanks are designed to confuse predators about which end is the head and which the tail, and thus in which direction the butterfly fish is likely to try to escape.

Wrasse (*Labridae*)

The brightly colored wrasse are known as “lip fishes” in German because of their protractile mouths. When they want to eat, they extend their whole jaw forward. Some species of wrasse work as cleaner fish, setting up cleaning stations where “client” fish come to be “serviced”, with the wrasse removing parasites from their bodies.

Double-Stripe Fusilier (*Pterocaesio digramma*)

The Double-stripe Fusilier has a vast number of names, most of which revolve around the bands on its body. Other names include Double-line Fusilier, Two-stripe Fusilier and Yellow-stripe Fusilier, though perhaps “banana fish” is its most memorable moniker. It is the official prefectural fish of Okinawa and is also a popular dish (known as *gurukun*). It feeds on zooplankton and changes color when sleeping from blue/yellow by day to green/red by night.

Blunt-Head Parrotfish (*Chlorurus microrhinos*)

Also known as Steephead Parrotfish because of the adult male’s prominent forehead, these fish grow up to 70 centimeters or more in length. They change color over the course of their lives from black with horizontal white stripes to greenish brown then finally greenish blue. They perform an important role in reef ecosystems, scraping algae from coral reefs. They keep themselves safe while sleeping by creating a shield of protective mucus or slime bubbles.

Manta Ray (*Mobulidae*)

With a span of up to 3.5 meters, the reef manta ray is among the biggest and most spectacular animals you will encounter in the Keramas. Dark on top and pale underneath, they have broad heads with cephalic fins, triangular pectoral fins, and a thin, whip-like tail. Despite their slightly sinister appearance, they are amiable and intelligent filter feeders that consume plankton through their gills. They tend to be found just north of Aka Island.

SUGGESTED PHOTO(S)

1. Big group of fish (Hero image)
2. Clownfish
3. Damselfish
4. Butterflyfish
5. Wrasse

6. Double-stripe Fusilier

7. Blunt-head Parrotfish

8. Manta Ray

Again, we could photograph the fish at specific sites & add this info to the caption (if needed)

Sea Turtles and Giant Clams

The Keramas are home to three of the seven species of sea turtle. From May to September, sea turtles lay their eggs high up on the beaches. The eggs take two months to hatch.

Green Turtle (*Chelonia mydas*)

The green turtle is mostly herbivorous, browsing on sea grasses and keeping them healthy by trimming them like a living lawnmower. The green in the name refers to the green fat found beneath the turtle's carapace (upper shell), not to the color of the carapace. The green turtle has a short snout and an unhooked beak (unlike the hawksbill sea turtle). Green turtles also differ from the hawksbill in having only a single claw on their flippers, as opposed to the hawksbill's two. The green turtle is classified as endangered.

Hawksbill Sea Turtle (*Eretmochelys imbricata*)

You can recognize the hawksbill sea turtle by its narrow head, sharp, curving beak, and the serrated edges of its shell. Using their beaks, they can forage deep in crevices in the coral for sea sponges, sea anemones, shrimp, and squid. Hawksbill shells were long the primary source of decorative tortoiseshell. As a result, hawksbill sea turtles are now classified as critically endangered.

Loggerhead Sea Turtle (*Caretta caretta*)

The loggerhead sea turtle is the world's largest hard-shelled turtle. The loggerhead sea turtle is omnivorous, using its strong jaws to crush everything from fish and jellyfish to clams and crabs. They are classified as vulnerable.

Fluted Giant Clam (*Tridacninae*)

These clams, the largest living bivalves, are distinguished by their heavy, fluted shells. They live in coral sand or on coral, and, just like coral reefs, get a lot of their nutrition through photosynthesis from the zooxanthellae algae that they host in their bodies. To get maximum exposure to sunlight, they sit with their shell openings pointed upward towards the sun. Their vivid electric blue mantle contracts when approached.

SUGGESTED PHOTO(S)

1. Several turtles or ultra close-up of turtle (Hero image)
2. Green turtle
3. Hawksbill turtle
4. Loggerhead Sea Turtle
5. Giant Clam with electric blue mantle

Again, we could photograph the turtles at specific sites in the Keramas to add “reality.”