

Game Background

On the introductory screen, players can choose to read more about each shark species in the game (swell shark, gray reef shark and great white shark), read instructions on how to play the game or simply start game play.

Players take the role of a diver “trailing” three species of sharks, using a repellent—bubbles. The mouse cursor will be crosshairs to indicate the aim of the repellent.

Players get three “lives” as well as the opportunity to gain new lives when they reach increments of 10,000 points. Each time a player loses one of their lives, the balance of the ocean is affected—the decline in predators results in an increase in other creatures within this virtual ocean environment. Having more creatures swimming past makes the game somewhat harder by camouflaging where hazards may be. With each life, the player also sees a health meter for the specific shark life currently in play. This life meter gradually declines unless the shark finds a food source. Each food item completely replenishes the shark’s health. If the shark does not find food within 30 seconds, it runs out of health and the player loses one life.

This means that each shark life may be lost either (a) by encountering a threat or (b) by running out of health due to lack of food.

At the end of each level, graphics will show the risks the player has avoided. Clicking any item brings up information about why it is a danger to sharks. In addition, clicking an item adds 50 points to the player’s score, but only once per item per game, regardless of level. (For example, clicking the same item twice does not result in 100 points.)

LEVEL 1

Swell sharks: Player trails a swell shark swimming in shallow waters. Food sources are fairly plentiful in this level, but the swell shark’s size creates a challenge in covering the space to get to food.

Habitat: The preferred habitat of the swell shark is rocky, algal covered bottoms. During the day, this small sluggish shark hides in caves and rocky crevices, camouflaged with its surroundings. As night approaches, the swell shark moves out to adjacent sandy bottoms in search of food. It ambushes prey items or rests quietly on the bottom with its mouth wide open, waiting for an unsuspecting victim. Although the swell shark is primarily a solitary species, it sometimes forms aggregations while resting, with individuals sometimes piled on top of each other.

Avoid

- **Predators:** Swell sharks' predators are marine mammals, including sea lions, seals and larger sharks, such as hammerhead sharks and leopard sharks.
- **Traps:** set by crab and lobster fishermen.
- **Trawls and gillnets:** set by sport fishermen.

Seek

- **Food sources:** sea urchins, crabs, squid, mollusks, aquatic crustaceans, fish, carrion (dead animal matter)
- Ideal location for laying eggs

LEVEL 2

Gray reef shark: Player trails a reef shark swimming in mid-depth reef waters. Food sources are less plentiful in this level.

Gray reef sharks appear grayish-brown, with white undersides and a black margin on their tail fin. They have a broadly rounded snout and very large eyes. They can grow to between six and eight feet and are sometimes territorial if other sharks are near. Females give live birth to a litter of one to six pups, which are usually from 15 inches to 22 inches long. Gray reef sharks school during the day and are more active nocturnally.

Habitat: Primarily distributed in shallow tropical and subtropical waters, the grey reef shark is often found near coral atolls and lagoons adjacent to reef habitats. It is often observed swimming along the outer edges of coral reefs. Its depth ranges from the surface to 920 feet (280 m). Active during the night, grey reef sharks sometimes form schools during the day. These schools swim close to the bottom, over flat habitats. Grey reef sharks also form loose aggregations that lurk close to reef drop-offs. Lone individuals may be seen over shallow reefs either lying motionless on the bottom of the sea floor for long periods of time or swimming. Tagging studies show that sharks living near ocean reefs are nomadic and travel long distances along the reef habitat each day. Sharks residing in lagoon areas tend to return day after day to the same site.

Avoid

- **Fisheries:** gillnets and longlines (baited) set relatively close to outer reefs.
- **Finning:** represented by particular boats as seen from below.
- **Predators:** Big sharks—specifically, white-tipped reef sharks, tiger, hammerhead sharks—eat little sharks of all species, even their own babies.

Seek

- **Find a mate:** Move toward mature females and away from obviously pregnant females.
- **Feed:** Search for boney reef fish about a foot long, lobsters, squids, crabs and octopuses.

LEVEL 3

Great white shark: Player trails a great white shark swimming in deep waters. Food sources occur only occasionally so it is very important to get almost every one.

Habitat: Great white sharks, normally 12 to 16 feet long (3.5 to 5 m), are one of the ocean's most feared predators. Off the California coast, they are responsible for more attacks on humans than any other shark, but they usually do not kill their victims. Great whites swim just beyond the surf, near coastal archipelagos or in deep water. Recent research using tags that record and transmit information about white shark behavior has led to the discovery that this species spends more time in deep water than previously believed.

Avoid

- Commercial longlines and gillnets and big game sport fishermen; protected in California
- Finning (same as Level 2)
- Boat engines (mistaken for food and can instead wound).
- Certain types of prey: As an apex predator feeding on prey often larger than themselves (e.g., sea lions), you must exercise caution when choosing a prey item and an attack strategy because the prey could inflict a potentially fatal wound (even if just due to infection).
- Larger great white sharks that may feed on smaller ones.
- Potentially fatal altercations with larger or more aggressive individuals of your own species while you are all feeding on the same food source, like a whale carcass.

Seek

- **Find a mate:** a challenging task since they are an apex predator and are few and far between.
- **Feed:** seals, sea lions, dolphins, sea turtles, skates, stingrays