Coral awareness week
Third week of July

Why are coral reefs special?
Coral reefs are spectacular natural wonders, among the world’s most diverse and complex ecosystems.

Just as cities on land are complex and variable systems in which each component is connected to and reliant on another part,

so too are coral reefs complex and variable ecosystems in which every animal is connected to the next in the complex web of life.

Each polyp, looks like a tiny sea anemone and secretes a cup-shaped calcium carbonate skeleton in which it sits.

Coral reefs are built over millions of years by tiny individual coral animals called polyps.
Like all plants, zooxanthellae use the sun’s energy to make food (photosynthesis) for themselves and for the coral polyps. By removing carbon dioxide during photosynthesis the zooxanthellae help to form the calcium carbonate skeleton.

Just as a city is bound together by a network of complex transport systems,
so too are coral reefs connected by the water that surrounds them.

Water brings food and removes waste.

Coral reefs are primarily found in the tropics, extending further north and south where warm currents provide a favourable habitat.

Reef-building corals need sunlight to survive and are only found in relatively shallow, clear water, where light can penetrate.

Coral reefs occupy only 0.1% of the ocean, but they support about 25% of all marine species.

Because of the abundance of food, reefs also attract larger animals such as turtles, sharks and marine mammals.

The plants and animals all live together by sharing the reef, each specialising in a different lifestyle and occupying a different niche.
Coral reefs are built over millions of years by tiny individual coral animals called polyps. Every year, millions of scuba divers and snorkelers visit coral reefs to enjoy their abundant sea life. Even more tourists visit the beaches protected by these reefs.

**PROTECTION**
Healthy coral reefs dissipate much of the force of incoming waves; this buffers shorelines from waves and storms, helping to prevent loss of life, property damage and coastal erosion.

**TOURISM AND RECREATION**
Every year, millions of scuba divers and snorkelers visit coral reefs to enjoy their abundant sea life. Even more tourists visit the beaches protected by these reefs.

**FISHERIES**
Millions of people rely on coral reefs for their nutrition and livelihoods.

**MEDICINES**
Creatures found in coral ecosystems are important sources of new medicines.

**BENEFITS OF CORAL**

Photo: Eve Marshall

Pew Charitable Trusts
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**THREATS TO CORALS**

Worldwide, coral reefs are being destroyed because of increasing human needs and pressures.

**CLIMATE CHANGE**

Corals cannot survive if water temperatures are too high. The increased water temperature causes corals to expel their zooxanthellae and then die.

Increased carbon dioxide levels are causing the acidification of the oceans and this is weakening coral reefs and other animals that use calcium carbonate in their skeletons.

**OVERFISHING AND DESTRUCTIVE FISHING PRACTICES**

cause considerable damage to coral reefs.

Dynamite fishing

Netting on reefs

**POLLUTION**

Urban and industrial waste, plastics, sewage, agrochemicals and oil pollution destroy coral reefs.
Ask restaurants and seafood suppliers not to sell overexploited tuna species.

Threats to Corals

Unsustainable Coastal Development
Poor coastal development and farming are destroying coral reefs, directly and indirectly.

Tourism
Careless anchoring, fishing and diving can damage coral reefs.

Tourism can affect coral reefs through poorly planned hotel developments, increased sewage and exploitation of resources to satisfy the demand for curios and food.
WHAT YOU CAN DO TO HELP

Learn more about coral reefs and the amazing creatures that make up coral reef ecosystems. Learn about how Marine Protected Areas can help to protect coral reefs.

Reduce your carbon footprint. Reduce use of and recycle plastic.

Choose your seafood wisely. Use the SASSI list. Choose to support environmentally responsible tourism operators.

Use “coral safe” sunscreen to prevent harmful chemicals from entering the water. Join a beach or reef cleanup in your area.

Do not buy products that have obviously been removed, alive, from a coral reef. Do not collect shells while diving. Every shell provides a home for another animal.

Do not anchor on a coral reef. Be careful not to touch the corals. Adjust your buoyancy before you descend to the reef to make sure that you will not bump or break the coral.

Do not purchase products that have obviously been removed, alive, from a coral reef.
The warm Agulhas Current that flows down the east coast of South Africa allows many tropical species, such as corals, to extend their distribution range.

In KwaZulu-Natal (KZN), coral reefs occur primarily in the iSimangaliso Wetland Park.

At Aliwal Shoal, located off Umkomaas on the KZN south coast, soft corals are more common.

Recent research is revealing deep-water corals along our coast.
Recent research focuses on monitoring coral reefs to **determine the effects of climate change** and other threats to the unique South African coral reefs.