



## What do coral reefs mean to you?

### Photography Competition



#### Pictures speak a thousand words


In celebration of the Second International Year of the Reef, Reef Check Australia and Project AWARE are running an International "What do coral reefs mean to you?" photography competition.

This annual competition is designed to showcase the multitude of different ways that 'we' value our reefs. These "values" include social activities and recreational pastimes such as diving, snorkeling, sailing and fishing, traditional cultural activities for many indigenous Australians and commercial ventures such as tourism and gathering seafood. The overall aim of the competition is to raise public and political awareness of the importance of responding to climate change and other global threats to coral reefs.

**What do Coral Reefs Mean to YOU?**

Help us to raise awareness about the importance of Australia's coral reefs!

**International Year of the Reef photography competition**  
Open for submissions: May 1st - June 30th 2008



The competition will be run through a photo gallery portal on the Reef Check Australia website. This allows anyone with internet access to become a member of Reef Check Australia and to upload images directly to the Reef Check web server. In addition registered members are also able to vote on all the competition entries excluding their own. Competition participants will be invited to submit entries in five separate categories:

1. People and the Reef
2. Creative Visions of the Reef
3. The Reef in our Hands
4. Animal Behaviour
5. Icons of the Reef

The competition will open for entries in May 2008. For further information please Reef Check Australia via email, [media@reefcheckaustralia.org](mailto:media@reefcheckaustralia.org), or telephone, (07) 4724 3950.

## Competition Categories

### 1. People and the Reef

Images entered in this category are judged on the basis of their memorability and capacity to communicate the fragile relationship between coral reefs and human beings.

*2007 People and the Reef Category Winner ~ Justin Gilligan.*



#### Why did we select this category?

People from around the world, and within Australia, use coral reefs in different ways. We selected this category to highlight these different relationships because these uses are important to people's culture and livelihoods. Unfortunately some of these uses have now become unsustainable and are damaging coral reefs around the world. We aim to increase the general public's awareness of how they can help to ensure a sustainable future for our tropical marine environment.

#### Human impacts on coral reefs

The key threats to coral reefs around the world include:

- . Overfishing
- . Destructive fishing
- . Nutrient pollution
- . Siltation

By helping to reduce any one of these human impacts you will help to increase the coral reef's capacity to recover (i.e. its resilience) from another impact or the devastating effects of Climate Change.

#### Some easy ways to help to protect Australia's coral reefs?

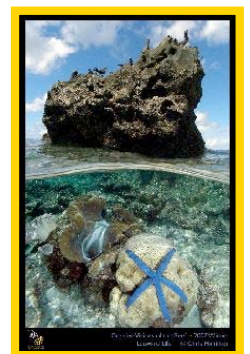
**Visit a coral reef:** Tourism can help to protect coral reefs by making the general public more aware of how we can help to protect them. Marine Park fees can help to fund sustainable management practices.

**Look after the reef from you home:** You can help to protect the reef by reducing use of products that will pollute the sea e.g. fertilisers or household cleaning products. You can also help to slow down Climate Change by riding your bike to work or school instead of taking the car.

### 2. Creative Visions of Coral Reefs

Entries in this category reveal new ways of seeing coral reefs and what they mean to the observer. The brief for submissions is to represent the photographer's vision in an imaginative or abstract way that captures the essence of the coral reef environment. Judges assess entries on the basis of originality and artistic vision.

*2007 Creative Visions of the Reef Winner ~ Chris Hamilton.*



#### Why did we select this category?

We selected this category to demonstrate the myriad of ways people view coral reefs. Visions of coral reefs have also changed through time, but is this because of personal interpretation or real change?

#### Understanding Shifting Baseline Syndrome

The natural environment changes. These changes can be great over a human lifetime but only subtle over a few months or years. Change creeps up on us unnoticed until there are no more huge fish in the sea or until we run out of clean drinking water and we wonder why. This is why it is important to have an idea of the environmental 'baseline', as this provides us with a reference point with which to accurately measure our impact on the environment and then do something about it! In ecological jargon, 'baseline' refers to the initial, pristine state of a community of organisms. The fisheries biologist 'Daniel Pauly' has recently remarked upon the significant problem of what he calls a 'Shifting

Baseline Syndrome'. Without a baseline to use as reference our standards for the environment are declining, leaving a world less aware of vanishing species, dirty polluted air, and contaminated water. (Jeremy Jackson 2002).

### What can you do?

By joining our [Reef Check Monitoring Team](#) you will start to document the current status of our coral reefs to help ensure our baselines can't shift further unnoticed.

## 3. The Reef in OUR Hands



Submissions will highlight the dynamic relationship between humans and coral reefs, the threats and pressures that they face today and into the future. Judges are looking for originality and artistic vision.

*2007 The Reef in Our Hands Category Winner ~ Giles Winstanley.*

### Why did we select this category?

With increasing human impacts along with a worrying trend in climate change our coral reefs are increasingly under threat. The Reef is in OUR hands because we do have the power to reduce these impacts and move towards a more sustainable future.

### How does Global Climate Change affect coral reefs?

Sadly the future of our coral reefs is seriously at risk from climate change. The issues corals face include:

- . Coral bleaching
- . Ocean acidification
- . Sea level rise
- . Coral disease

### Coral bleaching

Reef-building corals build limestone skeletons, which form coral reefs... so coral reefs wouldn't exist if it wasn't for the reef-building corals! These corals contain tiny algae in their tissues called zooxanthellae. The zooxanthellae provide their coral host with oxygen and food and receive nutrients and shelter in return. The zooxanthellae are also responsible for the greeny-brown colours in corals.

This relationship can break down when summer sea surface temperatures rise by just a few degrees celsius and the zooxanthellae are expelled leaving a white or fluorescent-looking coral behind. Corals can become less healthy or die with prolonged bleaching because their access to oxygen and food is reduced.

The [Great Barrier Reef](#) has been affected by 2 serious mass bleaching events since 1998. Scientists predict these events will become more frequent and more severe with global warming.

Imagine if you didn't eat for 2 weeks, you would be weaker and more susceptible to getting sick! Likewise, corals that appear to have recovered from bleaching (by taking in new zooxanthellae and recovering their normal colour) may also be less able to recover from other impacts such as water quality pollution and overfishing. So by reducing the coral's health we are reducing its ability to recover (i.e. its *resilience*) from other harmful impacts.

### Ocean acidification

The oceans absorb carbon dioxide (CO<sub>2</sub>) from the atmosphere. Scientists estimate that the oceans have absorbed half of the CO<sub>2</sub> released into the atmosphere by human activities in the past 2 centuries. This is causing a decrease in the pH (acidification) of our oceans. Ocean acidification reduces a coral's ability to build its limestone skeleton.

Reduced coral growth will reduce the ability of corals to compete with other organisms such as algae or sponges as well as reducing their ability to keep up with sea level rise: another predicted effect of

global climate change.

### Sea level rise

A warming global climate causes an expansion of the water in the sea, which in turn results in a sea level rise. This could have disastrous effects on low-lying areas such as many nations in the Pacific. Importantly, if coral growth is reduced due to ocean acidification their ability to keep up with sea level rises will be reduced. Corals live near the surface of the sea because their zooxanthellae need light to photosynthesise and produce their food. Sea level rises would decrease the penetration of the sun resulting in less photosynthesis and diminishing the supply of food for corals that prefer to live in more shallow water. Coral reefs are also important wave buffers for many low-lying islands providing coastal protection e.g. in the Pacific.

### Coral disease

It is believed that ocean warming can magnify the effects of infectious diseases, which are one of the primary causes of coral loss in the Caribbean. A recent study indicated that very high temperatures increased the severity of white syndrome disease on the Great Barrier Reef.

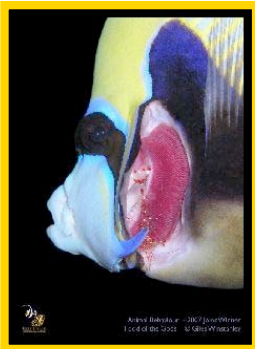
See more information on the effects of [Climate Change on coral reefs](#)

### How can we help to reduce the effects of Climate Change?

- . Walk or ride your bike to work or school.
- . Use energy-efficient light bulbs.
- . Turn off lights and electrical appliances at the wall when they are not in use.
- . Limit your use of high-energy demanding appliances such as air con or clothes dryers.
- . Purchase Green Power from a renewable energy provider.

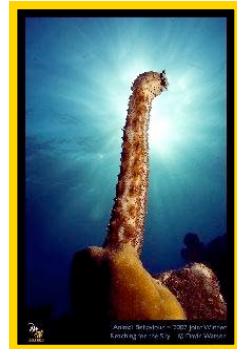
Join our [Reef Check Monitoring Team](#) and help to monitor and report on the effects of climate change on your local coral reefs.

## 4. Animal Behaviour



Images in this category will be judged on how the photographer captures memorable, unusual or striking the behaviour of any of the multitude of animals found on the reef. As with all the categories, originality is the key feature that will influence the judges' selections.

2007 Animal Behaviour Category Joint Winners ~ Giles Winstanley (left) and David Watson (right).



### Why did we select this category?

Animals and their behaviour are a critical part of a coral reef ecosystem. Watching animals in their natural environment can teach us about their different roles within their ecosystem. By comparing the roles with those played by humans in our society we can learn more about sustainable living.

### What is sustainable living?

The natural environment provides us with a number of resources as well as services e.g. decomposition of waste, filtering water or controlling the climate. Sustainable living means making choices about the resources you use to ensure the services your environment provides to you are maintained into the future. Activities you can take part in to help your community live in a sustainable manner include:

- . Reduce use of fossil fuels and use renewable energy wherever possible.
- . Reduce your waste and recycle.



- *Reduce* use of harmful chemicals such as cleaning products and replace them with environmentally safe alternatives wherever possible.

While we should applaud people's efforts to *reduce* the waste that we produce, it is worth remembering that coral reefs have evolved to recycle *every* bit of matter in their system leaving no waste whatsoever. Coral reef creatures such as lobsters and sea cucumbers spend their days eating up matter from dead animals and plants to ensure the energy is recycled back into the system.

## 5. Icons of the Reef



All entries submitted to this category will be expected to capture iconic scenes and or inhabitants of the reef and their behaviour. Judges rewarded images submitted that effectively conveyed a sense of wonder and the essence of why these images have become icons of coral reefs around the world.

*2007 Icons of the Reef Category Winner ~ Gary Brennand.*

### Why did we select this category?

Some scenes and animals are particularly identified with coral reefs. This category was selected to showcase these wonders of the coral reef and raise awareness of their beauty and importance.

### Help us to raise community awareness

One of the ways we can help to protect coral reefs is to raise the general public's awareness about the importance of coral reefs and how small actions from the community can help to protect their ecosystem services for future generations. The natural environment provides us with a number of resources as well as services e.g. decomposition of waste, filtering water or controlling the climate. These services can be disrupted if we abuse the environment by, for example, overfishing or pollution.

Reef Check offers a variety of ways for the community to get involved:

- Sign the [International Declaration of Reef Rights](#) and ask your friends to do the same.
- Sponsor a [Reef Check team](#)
- Increase your Reef IQ and participate in our [school education program](#)
- Purchase an [Underwater Reef Guide](#) and help us to monitor the abundance of key coral reef creatures
- Join our [Reef Check Monitoring Team](#) to collect scientific data on coral reef health.

Unfortunately many people have never visited a coral reef and they remain out of sight and out of mind. Many of these people have no idea how much they use coral reef resources and that their actions can help to protect them.

### Why are coral reefs important?

- Nursery ground for 25% of marine species and home to 33% of all known fish species.
- *Coral reefs rival tropical rainforest for biodiversity. Biodiversity is important because us humans depend upon the environment for all our resources. If we lose biodiversity, we may lose the opportunity to cure a disease or find new food sources.*
- Important food source for millions of people (500 million people depend partially or totally on coral reefs).
- *By purchasing fish that are caught as part of [sustainable fisheries](#) you will be helping to reduce the impacts of overfishing which affect so many marine systems including coral reefs. You will also be helping to secure a food source for current and future generations.*

- Source of medicines

*Did you know that anti-cancer properties are being discovered in coral reef sponges? Pharmaceuticals developed from these sponges may one day help to save the life of somebody you love.*

- Source of islands and white sand beaches for tourists.

*Sustainable tourism can help to protect both a reef as well as the community that depends upon it. Tourism provides an alternative income to coastal communities who may otherwise rely wholly on*

*extractive-based industries such as fishing.*

. Coastal protection from wave erosion to 1/6 of the world's coastline.

*Coral reefs act as barriers that protect the land from the effects of tropical storms such as cyclones.  
Pacific Islands and their coastal populations are particularly at risk.*

. Great beauty and spiritual value.

*Don't you want to ensure your children get to see these beautiful ecosystems?*