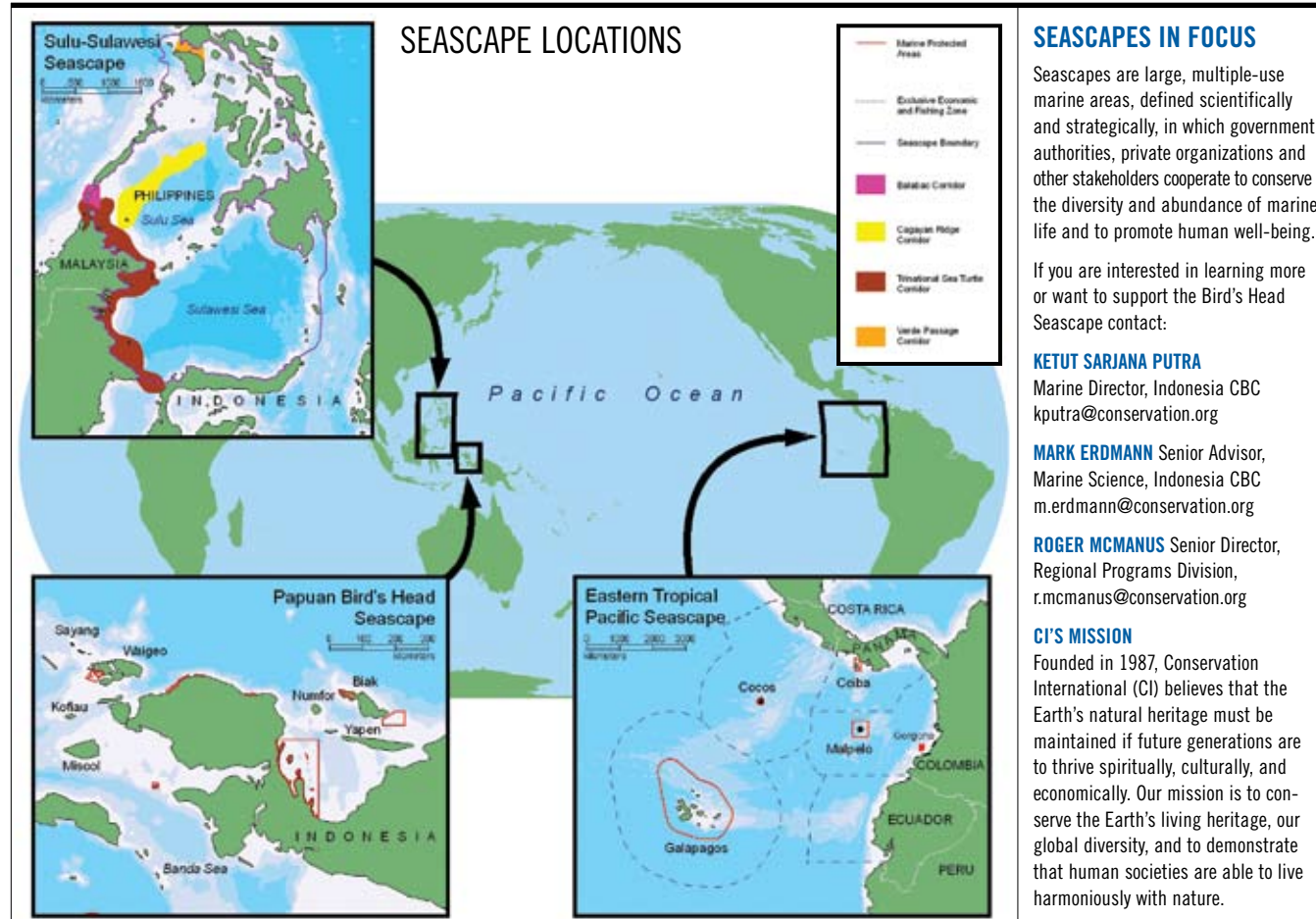




Green sea turtle (*Chelonia mydas*) in sea grass.

© CONSERVATION INTERNATIONAL



**SEASCAPES IN FOCUS**

Seascapes are large, multiple-use marine areas, defined scientifically and strategically, in which government authorities, private organizations and other stakeholders cooperate to conserve the diversity and abundance of marine life and to promote human well-being.

If you are interested in learning more or want to support the Bird's Head Seascape contact:

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**CI'S MISSION**

Founded in 1987, Conservation International (CI) believes that the Earth's natural heritage must be maintained if future generations are to thrive spiritually, culturally, and economically. Our mission is to conserve the Earth's living heritage, our global diversity, and to demonstrate that human societies are able to live harmoniously with nature.



A school of hammerhead sharks (*Sphyrna lewini*).

**SEASCAPES IN FOCUS**  
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# Malpelo Fauna and Flora Sanctuary Achieves World Heritage Status

Over the past year, Colombia's Malpelo Fauna and Flora Sanctuary has been the scene of a remarkable series of accomplishments. A legally designated marine park since 1995, Malpelo is home to terrestrial species found nowhere else, large colonies of seabirds, rocky and coral reef areas, and most famously, spectacular concentrations of large



The A.R.C Sula will be used to patrol the Malpelo Fauna and Flora Sanctuary.

marine species including sharks, tuna, manta rays, turtles, and whales. Following a thorough technical evaluation and consultation process, the relatively small Sanctuary was recently expanded from 651 km<sup>2</sup> to 8,757 km<sup>2</sup>, making it the ninth largest fully protected marine area in the world. In doing so, Colombia has become one of the few countries approaching the Convention of Biological Diversity marine protection targets slated for 2012.

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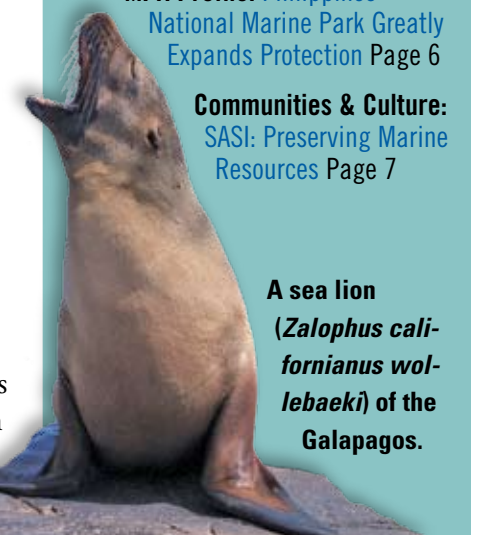
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A sea lion (*Zalophus californianus wollebaeki*) of the Galapagos.

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# Welcome to Seascapes in Focus

Welcome to Seascapes in Focus. Seascapes are a major advancement in the evolution of ocean governance toward large, multiple-use marine management regimes. The best available science and management experience strongly favors comprehensive management at a scale that can counter the growing threats to the abundance and diversity of marine wildlife and quality of the marine environment. There can be no doubt that to maintain abundant marine resources for people we have to be better ocean stewards.

The Seascapes, established voluntarily by collaborating national government authorities, are an answer to that need.

Seascapes as management regimes define ocean places in a manner that

encourages cooperation among government agencies and private organizations. Conservation International facilitates the management of three Seascapes in collaboration with hundreds of government and private partners. The three Seascapes are the Eastern Tropical Pacific Seascape, including the famous Galapagos Islands, and in the Coral Triangle, the Sulu Sulawesi Seascape and the Papuan Bird's Head Seascape. These are all places of extraordinary economic, ecological and aesthetic values.

Effective management regimes for the Seascapes will not be achieved in a few years or within normal political timeframes. Realistically, this scale of human effort has to be considered an inter-generational commitment. The good news is that our experience indicates that if we take care of marine ecosystems, they get



© CI/STEFAN ZIMMANN

better. I hope Seascapes in Focus provides its readers with information and inspiration to do just that—make the ocean better, and give it a new future.

**ROGER MCMANUS**  
—November 2006

**Roger McManus is a Senior Director for Conservation International's marine program, and the CI lead on the Seascape Program.**

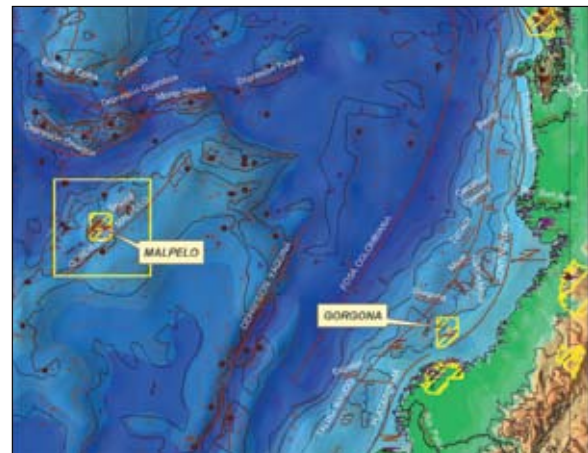
## MALPELO FEATURE STORY

*continued from page 1*

To provide for the protection of this vast area, the Colombian Navy and National Parks Service established an innovative and model inter-institutional agreement with CI and the Colombian-based Malpelo Foundation to outfit and jointly manage a new patrol vessel, the A.R.C. Sula, dedicated solely to patrolling Malpelo and conducting science within the Sanctuary. This boat entered full-time opera-

tion in September and has already contributed to apprehension of illegal fishing boats.

In recognition of the area's world-class wildlife and Colombia's commitment to protect it, in July 2006 UNESCO conferred the highly coveted World Heritage Status to Malpelo, adding to the impressive cluster of Eastern Tropical Pacific marine World Heritage sites that



includes the Galapagos Marine Reserve, Coiba National Park and Cocos Island National Park.

## BIRD'S HEAD SEASCAPE

### Stakeholders Unite in Ecosystem-Based Management

In September, Indonesia's Irian Jaya Barat provincial government, along with CI, TNC, and WWF Indonesia, co-hosted two multi-

stakeholder workshops on ecosystem-based management (EBM) of the Bird's Head Seascape. Held in the two major cities of the Seascape, Manokwari and Sorong, the workshops brought together officials from spatial planning and fisheries agencies, traditional councils, universities, NGOs, and local parliaments. Reviewing the preliminary results of

15 studies implemented by the three conservation partners to design an overall EBM plan for the Seascape, the stakeholders—including the governor of the province—signed an important joint commitment to create policies that incorporate a marine ecosystem-based management approach. Such an approach integrates biological, social and economic factors into a comprehensive strategy aimed at protecting and enhancing sustainability, diversity and productivity of the natural resources.



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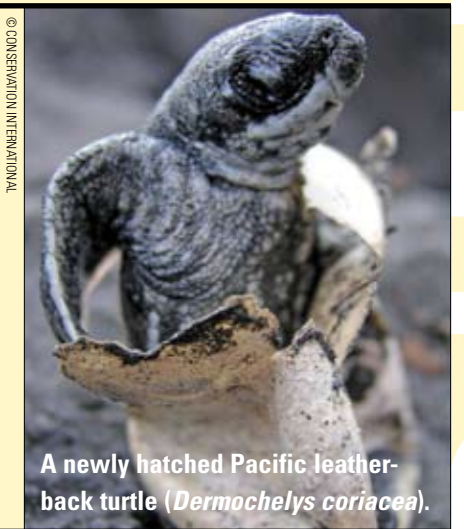
**A large school of jacks in Bird's Head.**

## EASTERN TROPICAL PACIFIC SEASCAPE

### Local Initiatives Promote Successful Conservation

In one of his first environmental decisions, new Costa Rican leader, President Arias officially signed into creation the new Caletas Wildlife Reserve and is poised to double the marine portion of Camaronal Wildlife Reserve. CI has provided financial and logistical support to the locally

led design process of these neighboring marine protected areas (MPAs), which has included the participation of fishermen, tourism entrepreneurs, local and foreign investors, and local NGOs. Both areas will strengthen the MPA network that protects critical turtle nesting areas for endangered species such as the Pacific leatherback turtle.



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**A newly hatched Pacific leatherback turtle (*Dermochelys coriacea*).**

## SULU-SULAWESI SEASCAPE

### Up in Arms: Law Enforcement Training for Sulu-Sulawesi Stakeholders

CI-Philippines and local NGO partner, Tanggol Kalikasan Foundation, recently conducted a Law Enforcement Training in the Balabac Strait Corridor. Elected village leaders, representatives from the municipal government of Balabac, and locally stationed members of the Philippine military received an orientation on the Philippine Fishery Code and

the Philippine Wildlife Act. The trainees learned to identify fish caught by illegal means, such as bombing and poisoning; and practiced appropriate methods for arresting violators, seizing items, and boarding boats, among other skills.

Training was also undertaken for fishermen groups in Balabac, which who volunteer and are authorized to conduct citizen's arrests of violators of environmental laws.



© CI/JOBERT FRIELAND

**A marine park manager monitors his section of a national park.**

## Ferdiel Ballamu: Sea Turtle Defender

Meet Ferdiel Ballamu, a passionate defender of both turtles and local culture in Raja Ampat in the Bird's Head Seascape. Ferdiel has been motivated by his love of the sea and especially sea turtles since childhood. His interest became a passion for turtle conservation as he watched the green turtle rookery next to his native village collapse over the course of two decades of intensive poaching.

In 2001, Ferdiel joined other conservation-minded colleagues to form the non-governmental organization "KONPERS," which is focused on conservation and sustainable development issues in Raja Ampat. A primary KONPERS initiative is turtle conservation—a difficult balancing act, given many local communities' tendency for consuming turtles in ceremonial feasts.

Ferdiel and his team's accomplishments include community awareness-raising projects and turtle satellite tagging research that revealed turtle "killing



Ferdiel Ballamu.

fields" with up to 40 carapaces piled in one remote rookery in north-western Raja Ampat. They have now developed a turtle nest conservation program at this important rookery.

Aided by grants from CI and capacity-building trainings by international turtle experts, the team actively patrols the beaches to prevent further poaching. Ferdiel's commitment to sea turtles continues to grow, and he dreams of a day when all people in Raja Ampat understand and value these ancient mariners as he does.

"I would love to see my people conserve sea turtles and their habitats in Raja Ampat."

FERDIEL BALLAMU, KONPERS

### SPECIES SPOTLIGHT



#### DOLPHIN SPECIES MAKES WAVES IN BALABAC

The importance of the Sulu-Sulawesi Seascape was recently enhanced when the Indo-Pacific Bottlenose Dolphin (*Tursiops aduncus*) was confirmed to be a separate species from the com-

mon Bottlenose Dolphin (*T. truncatus*). The Indo-Pacific Bottlenose Dolphin is not well-known but appears to be abundant in Balabac Strait.

During the same survey, the Dwarf Spinner Dolphin (*Stenella longirostris roseiventris*),

a sub-species of the long snouted spinner dolphin, was also spotted. Still subject to verification, this could be the first live documentation of the Dwarf Spinner Dolphin in the world, as previous documentations are based only on dead specimens.

### BIRD'S HEAD SEASCAPE

#### Ground-breaking Genetic Connectivity Study

A grant to Dr. Paul Barber at Boston University is now funding the most comprehensive marine genetic connectivity study ever conducted. Seventy focal taxa, ranging from marine worms to sea cucumbers, corals, and skipjack tuna, are being investigated for the degree to which their populations from sites across the Bird's Head Seascape are genetically connected. The results of this ground-breaking study will provide managers and seascape governments with crucial insight into which of the Seascape's coral reefs represent "sources" and which reefs are "sinks" in terms of larval movement and distribution, providing data critical to designing an optimally connected network of marine protected areas. To date, more than 17,000 samples have been collected from 97 sites, and preliminary results suggest that while some species with strong dispersal potential (such as tuna) show high levels of connectivity, other reef organism populations are much more subdivided and should be managed as discrete conservation targets.

### EASTERN TROPICAL PACIFIC SEASCAPE

#### Shark Tagging Promises Important New Data

Over the past year CI, key research institutions, and managers from Costa Rica, Panama, Colombia, and Galapagos have cooperated to place tracking devices on several shark species at



Hammerhead shark (*Sphyrna lewini*).

a number of sites where they are known to congregate.

As top predators that play a fundamental role in regulating food webs, the ecological importance of sharks cannot be overstated. Contrary to sharks' reputations as man-eaters, their global populations are being continually decimated by fisheries, mainly for shark fin consumption.

As large mammals move in great migrations across the Serengeti, sharks are believed to pulse back and forth across this Eastern Tropical Pacific Seascape in response to seasonal abundances of food. But what routes do they follow? Do males, females, and juveniles behave in the same way? Answers to these questions will be

#### Scientists working to tag shark species.



revealed by these tagging efforts and are crucial to elaborating conservation strategies that will allow these animals to survive.

### SULU-SULAWESI SEASCAPE

#### Partnering to Fill Knowledge Gaps

The primary goal of the Sulu-Sulawesi Seascape project is to contribute to the design of ecologically functioning networks of marine protected areas in the Philippines. CI-Philippines, in partnership with key academic institutions in the country like the University of the Philippines' Marine Science Institute and the Ocean Biology Lab in the Visayas, provided grants that enable local scientists to undertake research to improve understanding of demographic connectivity of populations of marine organisms within and across marine biodiversity conservation corridors. At present, there is very little information on demographic connectivity, so CI-Philippines and partners are filling this critical knowledge gap through targeted research.



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## Philippines National Marine Park Greatly Expands Protection

On August 23, 2006, Philippine President Gloria Arroyo signed a proclamation expanding the Tubbataha Reef National Marine Park (TRNMP). Tubbataha is one of the most biologically diverse coral reef systems in the Philippines with a variety of marine habitat formations such as reef crests, two coral islands, lagoons, and seagrass meadows. The two islands of Tubbataha support nesting areas for sea turtles, such as the hawksbill and green turtles, and other ecologically important species, including giant clams and sea birds.

(Above) Schools of scalefin anthias (*Pseudanthias squamipinnis*) are common throughout coral reefs in TRNMP. (Right) National park rangers and patrolman.



© CI, JÜRGEN FREUND

The proclamation increased the total area of the Park to almost 1,000 km<sup>2</sup> and increased the Park's protection from unauthorized entries and any form of pollution or natural resource collection. The protected area will be jointly managed by a policy- and grant-making body and will benefit from the guidance of its consultative group of stakeholders, including local officials and members of the armed and naval forces.

A major conservation strategy in the Park is the "no take" policy, providing refuge to corals, fish, and other marine life. Only activities related to tourism, research, or conservation are allowed. The Park is one of the better managed marine protected areas in the Philippines, and CI and its Seascope partners are working closely to further strengthen the management implementation strategy.

For many years, Tubbataha's great conservation advantage has been its remoteness and isolation. Now it has the added benefit of the law to protect it for future generations.

## SASI: A Traditional Practice to Preserve Marine Resources

In areas of the Bird's Head Seascope, an ancient tradition known as "sasi" is still respected and observed. Sasi prohibits harvesting certain types of natural resources in particular areas during specified times. The access to resources limited by sasi is determined by a respected elder council with lifecycle knowledge of those resources designated for protection. Sasi also provides a system of sanctions with procedures to penalize violators, and it ensures the fair sharing of resources among members of the community.

If implemented properly, sasi can allow marine resources—especially those with high economic value—to recover, and as

a result, resources can be harvested in a more sustainable manner. Sasi has been successfully used to manage marine fisheries such as sea cucumber and lola (trochus shell). However, significant challenges have undermined the practice of sasi, and given the number of marine resources currently under threat, sasi's traditional restrictions are relatively limited in scope, and therefore may not fully encompass the marine species or physical area requiring protection.

CI embraces the sasi concept and—along with local organizations—is working to revitalize and expand this traditional community management technique.



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(Above) A Raja Ampat fisherman shows his catch of the day. (Below) A girl happily helps her parents dry fish her father caught.



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