

# Seascapes in focus

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

## Kaimana government declares a 597,000 ha multiple-use MPA in southern Bird's Head Seascape

In July 2008, just 14 months after CI began an intensive facilitation process with the regency government and local traditional council of Kaimana, Indonesia, the government and traditional leaders declared a 597,000-hectare, multiple-use marine protected area (MPA) that covers all of Kaimana's jurisdictional waters out to four miles from shore.

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The decree, which was also strongly facilitated by Indonesia's Ministry of Marine Affairs and Fisheries (MMAF), excludes all commercial fisheries from Kaimana's waters and prioritizes the area for marine tourism, pearl and seaweed aquaculture, local traditional fisheries, and enhancement of fish stocks through permanent closures in "no-take areas."

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## Local governments engaging in Seascapes

In some countries of the Coral Triangle, local governments oversee management of coastal areas. This decentralized management represents both a challenge and an opportunity. Local governments often lack the capacity or tools to adequately manage coastal and marine resources yet want to improve marine management to allow for sustainable use. Through the Seascapes Program and the Coral Triangle Initiative, CI is increasing collaboration with local governments in the Bird's Head and Sulu-Sulawesi Seascapes to provide technical support and help them build capacity.

In recent months CI has signed



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agreements with local governments in the Turtle Islands, Lubang and Looc municipalities in the Philippines. These agreements are key in defining the collaboration between CI and the municipalities and in ensuring a clear understanding of the responsibilities of all involved. The process of developing the agreements generates trust and realistic expectations for what is needed to secure sustain-

ably managed marine resources, such as the creation of well managed no-take marine areas where fish populations can recover. We are optimistic that the opportunity of decentralized resource management will allow the Seascapes in the Coral Triangle to gain greater public involvement and deliver improvements to the marine environment and the people who depend on it.

### NEW MPA IN BHS

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Although initial plans included only the reef areas of Triton Bay and Tanjung Kumawa (in which extraordinary marine biodiversity was revealed two years ago by a CI expedition), the final boundaries include such unique geological features as the prehistoric Arguni Bay (an impressive, crocodile-filled karst fjord system) and the massive mangrove areas in Kayumerah and Etna Bays. The protection extends also to large freshwater and estuarine areas. The MMAF is thrilled to have this MPA as a model "aquat-

ic protected area" that integrates marine and freshwater ecosystem management.

CI has significantly expanded its Kaimana field team and is working with the Kaimana government, local stakeholders, and the MMAF to begin the participatory process of drafting a MPA management plan and zoning system that protects the area from commercial fisheries and sets aside at least 30 percent of the area as complete "no-take areas".



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Above: A healthy coral reef ecosystem thrives under the protection of the newly created MPA.

## BIRD'S HEAD SEASCAPE

### Papuan turtle conservation program forges ahead

Since September 2006, through external grants CI has supported the Papua Sea Turtle Foundation's (Yayasan Penya Papua, YPP) "24-7" anti-poaching patrol in the regionally important green turtle rookery of Sayang-Piai in Raja Ampat. Before these patrols began, more than 90 percent of nesting females were poached. In the past two years, however, poaching has dropped to zero, and more than 2,000 nests have

been saved. The patrol team consists of both YPP staff and 12 well trained locals from two villages with tenure rights over the rookery.

Villagers' involvement on the patrol team has been crucial in developing a sense of ownership in the turtles' conservation and in the surrounding Kawe Marine Protected Area (see "Communities and Culture"). Earlier this year, the team built a hatchery into which nests are relocated to pro-

tect them from monitor lizard predation, with initial data indicating 80 percent hatching success.



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## EASTERN TROPICAL PACIFIC SEASCAPE

### Ecuador and Colombia establish new MPAs

Ecuador's Santa Elena Fauna Reserve and Colombia's Sierpe Regional Natural Park recently have joined the ranks of exceptional marine protected areas in the Eastern Tropical Pacific, including Galapagos, Malpelo and four UNESCO World Heritage Sites.

The Santa Elena Fauna Reserve

protects 47,274 hectares of Ecuadorian coastal and marine habitat, including important marine mammal habitat. By funding local partners, CI supported the preparation of technical documents on management alternatives, legal issues, research and monitoring.

In Colombia, the La Plata community near Bahía Málaga has established the Regional Natural Park of Sierpe—an initiative that

directly originated from the Bahía Málaga Community Council with support from CI, WWF-Colombia, and other Colombian institutions. This park protects 25,178 hectares of coastal tropical rainforest, mangroves, and humpback whale habitat. This remarkable conservation achievement served to halt a large commercial port in Bahía Málaga that posed a major threat to the marine environment.

## SULU-SULAWESI SEASCAPE

### Barangay Gasang, Mabini, and Batangas clean the coast

As part of the International Coastal Clean-up in September 2008, CI championed a clean-up event in the Philippines' Verde Island Passage. After opening prayers and remarks from local officials, CI's Romeo Trono presented CI's donation of three patrol boats to the municipality of Mabini to help protect three MPAs in the region. In appreciation of this gift, Mabini's mayor, Mr. Nilo Villanueva, pre-

sented a plaque to CI. Throughout the remainder of the day, more than 200 volunteers spread out along the coasts of Barangay Gasang, Mabini, and Batangas to remove trash from the beaches. CI sponsored the participation of 11 volunteers from the School of Environmental Science and Management and 200 volunteers from St. Bridget College for this clean-up, providing an opportunity for the public to learn hands-on about the threat of pollution to marine

biodiversity.



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## Hector Guzman

Working with governments in the Eastern Tropical Pacific Seascape (ETPS) to address the most pressing marine conservation challenges requires the collaboration of accomplished scientists, committed conservationists, and effective communicators. Some rare individuals fit into all three of these categories; Hector Guzman of the Smithsonian Tropical Research Institute in Panama is such an individual.

More than 100 scientific publications bear evidence to Hector's scientific skills and enormous energy. He is best known for his research on corals but has also published on fisheries, pelagic species, and general conservation issues. In addition to discovering and describing new species and monitoring important habitats in both Pacific and Caribbean Panama, he has made important scientific contributions by explaining how species and habitats function and what they require to remain healthy.



© HECTOR GUZMAN

Above: Hector Guzman is a true hero in the region.

Hector uses science to support policy changes to protect the marine environment. His work on indicator species in Coiba National Park significantly contributed to Coiba Management Plan Coordinator Juan Mate's discussions with fishermen, conservation groups, and other local stakeholders to establish a new zoning system for Coiba. Three years of work on a shoestring budget in Las Perlas Archipelago led to its establishment as a marine protected area. Hector led the scientific studies in the area, supervised graduate students and personally appeared before the Panamanian Congress to advocate

the creation of the new MPA.

Most recently Hector has taken a leading role in the ETPS regional shark tagging network. His work adds important information to the network of scientists focusing on whale sharks and the movements of hammerheads during critically important juvenile life stages.

Trusted by fishermen, admired by scientific and conservation peers and respected by governments, Hector Guzman is one of the staunchest and most effective supporters of the Eastern Tropical Pacific Seascape and the Marine Corridor.

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### SPECIES SPOTLIGHT

#### Hawksbill turtle nesting beach discovered

The Eastern Tropical Pacific Seascape remains a stronghold for several species of sea turtle. Green turtles' largest Eastern Pacific nesting population is found in the Galapagos, olive ridleys still nest by the hundreds of thousands on Costa Rican beaches, and Pacific leatherbacks' largest nesting population is found in Costa Rica's Las Baulas National Park. Hawksbill turtles, however, nest only in small pockets throughout the region.

Their numbers have fallen so low that every nest is important to this species' survival in the Seascape.

Although no official records of hawksbill nests in Ecuador existed until 2008, anecdotal reports suggested that researchers had not looked hard enough. CI partner Equilibro Azul accepted that challenge and, in 2008, conducted detailed surveys of 36 beaches spanning the entire Ecuador coast. Local community interviews revealed that turtles nested on 17 beaches, with the beaches in

Machalilla National Park boasting the greatest concentration.

EquilibroAzul headed to Machalilla. During 140 night patrols on seven beaches in the park, 15 hawksbill nests were discovered—a surprisingly high number considering the nominal nest counts in other areas of the Seascape. This discovery establishes Machalilla as one of the most important hawksbill concentration sites in the entire Eastern Pacific.

## BIRD'S HEAD SEASCAPE

### Bryde's whale population sighted in Kaimana

APEX Environmental and the State University of Papua, with a grant from CI have conducted a marine mammal survey of Kaimana, Indonesia. In a 378-kilometer survey route with 81 hours of active surveying, dolphins were sighted 51 times, and the team identified four species of dolphin and an apparently resident pod of Bryde's whales. The Bryde's whales are well known by local villagers and are known to move regularly between Bitsyara and Triton Bays via the Namatote Strait in a predictable migratory route. The team has mapped this route and strongly recommended that the area be kept free of commercial ship traffic and pearl and seaweed farms to prevent disturbance to the little-known whale species. Also, the team recorded a whale shark aggregation close to Tanjung Kumawa in Kaimana's northern waters.



Villagers in Bird's Head look out over the Seascape.



© YVES LEBRE, FUNDACION MALPELO

Above: A school of hammerhead sharks swimming through the ETPS.

## EASTERN TROPICAL PACIFIC SEASCAPE

### Can MPAs save sharks?

Sharks have been overfished in every ocean. While they are still seen in great numbers in the Eastern Tropical Pacific MPAs of Galapagos, Cocos and Malpelo, the same cannot be said for inshore islands such as Coiba and Gorgona. Catch records indicate region-wide declines. Can protection in MPAs save these sharks?

During a research cruise to Galapagos, scientists recently detected a hammerhead shark previously tagged in Malpelo. This track completes a golden triangle: hammerheads from Galapagos and Malpelo previously had appeared in Cocos, but direct connectivity between the two areas had never been documented. Because hammerhead populations in Ecuador, Costa Rica and Colombia are connected, collaboration on shark conservation policies is needed among countries, not only within countries.

See the shark tracks at:  
[www.migramar.com](http://www.migramar.com)

## SULU-SULAWESI SEASCAPE

### Scientific data combined with local knowledge to define MPAs

A GIS map-based analysis combining scientific data with local knowledge and perceptions of resources has proven to be a useful tool to guide decision-makers and local managers in MPA site selection and network establishment. The integration of both types of information generates key ecological and threat criteria relevant to MPA site selection, including site-specific recommendations on appropriate design features such as location, size and configuration of networks of MPAs. This advanced integrated analysis is being used to guide the creation of new MPAs and strengthen existing protected areas in three marine biodiversity corridors in the Sulu-Sulawesi Seascape: Verde Island Passage, Cagayan Ridge and Balabac Strait.



© CI/ STERLING ZUMBRUNN

In the southwestern part of the Sulu Sea, in the Sea Turtle Corridor of the Sulu-Sulawesi Seascape, a group of small islands straddles the maritime border between Malaysia and the Philippines. Six of the islands belong to the Municipality of the Turtle Islands in Philippines: Boan, Lihiman, Langaan, Great Bakkungan, Taganak, and Baguan. These small islands extend a total of 308 hectares and together comprise the Turtle Islands Wildlife Sanctuary (TIWS).

Endangered green turtles and the occasional Critically Endangered hawksbill turtle nest on these islands, crawling up to the beaches at night to lay their eggs in the sand. Sea turtle nesting on the islands, however, has declined considerably over the last five decades as a consequence of egg poaching and introduced predators such as rats, which prey on sea turtle hatchlings. To reverse this decline,

CI recently signed a memorandum of agreement with the Turtle Islands Municipality to collaborate on enforcement, improved management of the sanctuary and protection of the nesting turtles and their eggs. CI is working with the Protected Areas Wildlife Bureau of Philippines' Department of Environment and Natural Resources to secure approval of the sanctuary's management plan and to convene the board that oversees its management.

Together with islands in Malaysia, TIWS make up the Turtle Islands Heritage Protected Area—the world's first transboundary marine protected area, created in 1996. CI is working with partners on both sides of the border to ensure that better protection allows threatened sea turtles to come ashore at night to safely deposit their eggs without the threat of the eggs being taken for illegal trade.

Baby Green Turtle  
(*Chelonia mydas*)



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## Kawe traditional leaders declare closure of marine area

In September 2008 in Raja Ampat, Indonesia, traditional leaders from the local Selpela and Saleo clans of the Kawe people declared a one-year sasi closure of all marine resource use in the 155,000-hectare Kawe Marine Protected Area.

Sasi is a traditional resource management technique in Papua and the Maluku region of eastern Indonesia, whereby traditional leaders declare seasonal closures of natural areas to allow living renewable resources such

as coconuts, sea cucumber, or lobster a respite from harvesting. The method affords the resources a chance to grow and reproduce before harvesting resumes.

With centuries of experience and belief in the sasi system, Raja Ampat villagers have been able to easily make the connection between their traditional management techniques and modern-day no-take areas within MPAs. Although this recent sasi declaration lasts only for one year, the villagers have committed to

extending this to a permanent closure for all finfish harvesting in the MPA, with seasonal harvest permission granted for sea cucumber, lobster, and Trochus shells—their main income providers—in about 50 percent of the protected area. The remainder of the MPA will be permanently closed to all marine resource exploitation as a no-take areas.

*Below Left: Scuba divers from around the world visit the Bird's Head Seascape to explore the brilliant coral found in the region.*

*Below Right: Locals rely heavily on marine resources for multiple purposes.*

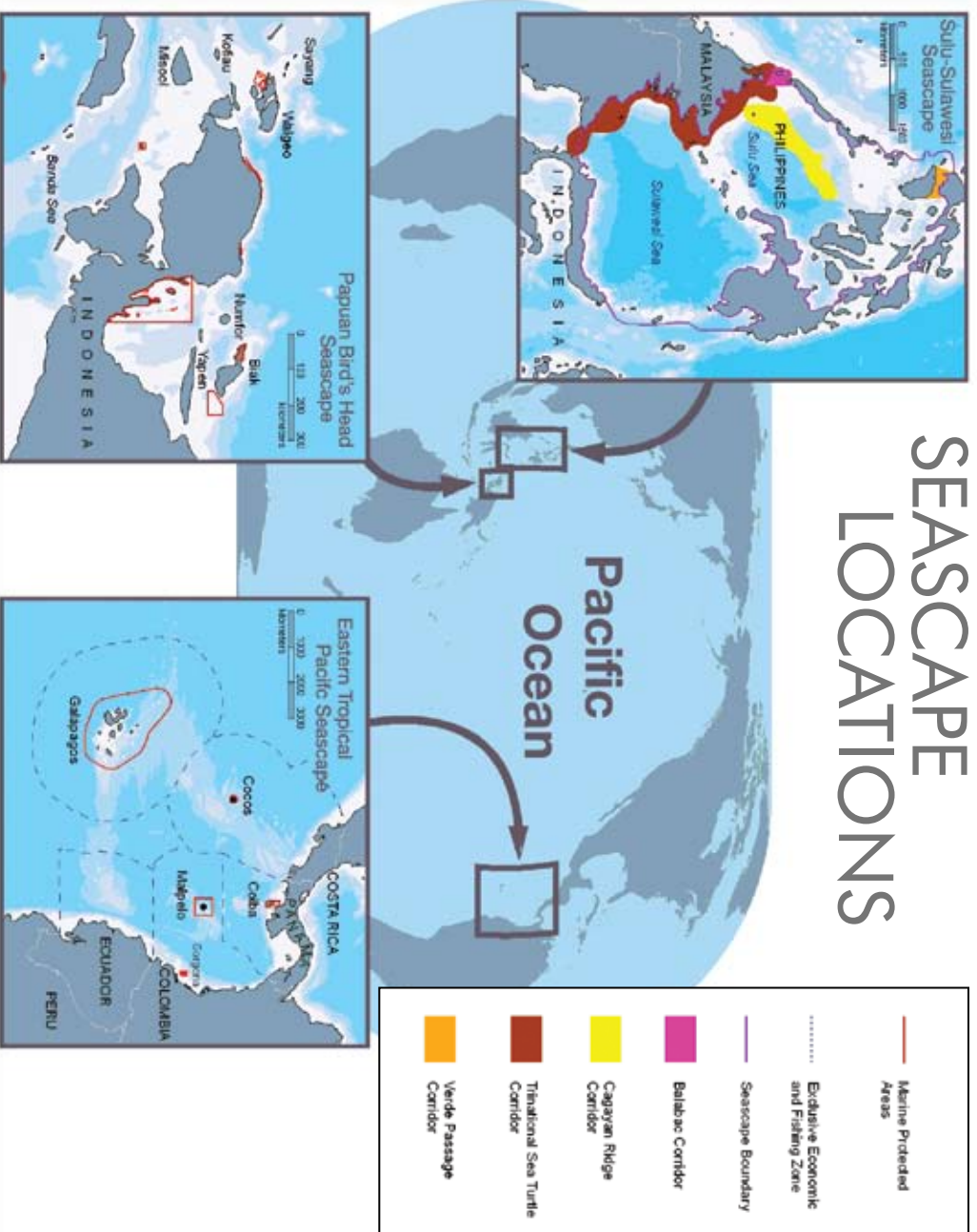


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# SEASCAPE LOCATIONS



**A Giant sea anemone (*Stichodactyla gigantea*) and pink anemonefish, (*Amphiprion perideraion*).**

**SEASCAPES IN FOCUS**  
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## 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 Papuan Bird's Head Seascape please 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.

