

INTRODUCTION

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“Reefs on Steroids.” “The Kingdom of Coral.” “Heart of the Coral Triangle.” “The World’s Richest Reefs.” The magazine cover articles written on Raja Ampat (which literally translates as “the Four Kings”) in the past 5 years are never short on superlatives. Even David Doubilet, the normally understated legend of underwater photography who has most certainly “seen it all” in over forty years of traveling the globe to document the marine realm, effusively named his recent National Geographic story on Raja Ampat “Ultramarine”. It seems Raja Ampat casts a spell on all who visit – scientists, photographers, novice divers and crusty sea-salts alike. As stunningly beautiful above water as it is below, the “King of Kings” has a startling diversity of habitats to explore. Each of these – from the stark wave-pounded slopes that drop

away beneath the karst cliffs of Wayag and Uranie to the deep, nutrient-rich bays of Mayalibit, Kabui and Aljui to the “blue water mangrove” channels of Kofiau and Gam to the plankton-rich upwelling areas of Misool and the Dampier Strait – are home to unique assemblages of species that, when taken together, add to produce the most impressive species lists ever compiled for a coral reef system of this size. To date, some 1,223 species of coral reef fish have been recorded in Raja Ampat by renowned ichthyologist Gerald Allen, with new species being uncovered on every trip he makes to the region. Over 530 species of hard coral have been confirmed from Raja Ampat, with coral scientists estimating there are likely over 550 species existing here (which equates to a mind-blowing 70% of all known coral species on

the planet!). In my own work, I’ve recorded some forty-two species of reef-associated stomatopod (mantis shrimp) – easily the highest diversity ever recorded for an area this size. Perhaps just as important as the record-breaking species tallies, many of these fish, corals and crustaceans appear to be endemic to the region, found nowhere else on earth. Indeed, Raja Ampat and the surrounding Bird’s Head Seascape in northwest Papua have been deemed a “species factory” for marine life. As deep technical diving makes a debut in the area, even more new species records are sure to follow as divers plunge into Raja Ampat’s unexplored twilight zone.

Though Raja Ampat has only recently captured headlines as the global epicenter of marine biodiversity and as

a “must-dive” destination for divers, the first time that I personally heard of Raja Ampat was in 1992 as a Ph.D. student, under very different circumstances. In those days, I was based in a small Makassarese fishing community on the island of Barang Lompo off South Sulawesi. Rather than reading about Raja Ampat in a dive magazine, I was mesmerized by the stories of my shark-finning neighbors – who described a mysterious faraway land of strange karst islands and reefs teeming with sharks, a veritable gold mine for their baneful activities. A small armada of long-lining boats would regularly sail from our island home, returning 6-8 weeks later with stacks of dried fins that bespoke the undersea bounty of Raja Ampat. Sadly, nearly two decades of intensive shark-finning in the Bird’s Head has



Karst islands in the Wayag Archipelago, one of Raja Ampat’s 7 marine protected areas.



Exploring an underwater cave on Uranie Island, one of many in Raja Ampat.



Dr. Gerald Allen searches for the 1186th fish species from Raja Ampat.



Effective marine reserves are the best tool to manage reef fish stocks.

dramatically reduced shark populations to a tiny fraction of what they once were.

Today, nickel mining threatens to replace shark-finning as the top insult to Raja Ampat's awe-inspiring beauty. And thus the paradox of Raja Ampat – world unique, globally outstanding, literally bursting at the seams with biodiversity - yet highly threatened. It is thus with great hope and a sense of urgency that I write the introduction to this unique photojournalistic essay on Raja Ampat as seen through the lenses of a select group of the world's top underwater photographers. Along with producers Dos Winkel, Brigid Sullivan and Max Ammer and the environmentally-minded photographers that have donated their time and images to this book, it is my sincere hope

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Raja Ampat's local population is highly dependent on healthy marine resources.

that this stunning collage of photographs will bring further world attention to Raja Ampat and the Bird's Head Seascape, building additional public and political support for efforts to conserve this marine Eden far into the future.

To be sure, conservation initiatives in Raja Ampat are already making great progress. Thanks to the passionate efforts of dive pioneers Max Ammer and Edi Frommenwiler, Raja Ampat's mind-blowing marine biodiversity was revealed to the world earlier this decade when Conservation International (CI) and The Nature Conservancy (TNC) sponsored a series of rapid biodiversity assessments in 2001 and 2002. Since that time, both CI and TNC and a host of local environmental NGOs like the Papua Sea Turtle Foundation, Raja Ampat Research and Conservation



Sunset on Kri jetty; marine tourism is a main pillar of economic development in Raja Ampat.

Centre, Yayasan Nazareth, CORAL, WWF-Indonesia and Belantara have been working closely together with the people and government of Raja Ampat to conserve this global heritage. An impressive range of donors have committed funding to Raja Ampat, including significant investments by the Walton Family Foundation, the David and Lucile Packard Foundation, the Gordon and Betty Moore Foundation, the United States Agency for International Development, the Bakrie Green Program, Dexter and Susan Paine, the Seacology Foundation, the Henry Foundation, the Pew Fellows Program in Marine Conservation, the Beneficia Foundation and the Virginia Wellington Cabot Foundation. Together, these organizations' investments have focused on a comprehensive three-pronged approach to conservation in Raja Ampat, which I'll briefly outline below.



CI scientist Muhammad Lazuardi monitors coral reef condition.

The first initiative has centered on the scientific characterization of Raja Ampat, including its biodiversity and the important large-scale ecological and oceanographic processes that influence this diversity. Besides generating world record species lists and describing dozens of new and endemic species, this initiative has also succeeded in revealing patterns of genetic and oceanographic "connectivity" that are critical to understand in order to develop plans to manage the region's marine resources in a sustainable manner. Other important results under this initiative include the revelation that Raja Ampat's corals are regularly exposed to a nearly 17°C variance in sea surface temperatures (thus "pre-adapting" them to the temperature fluctuations that scientists predict will become increasingly common



Turtles like this hawksbill (*Eretmochelys imbricata*) now benefit from an intensive nesting beach protection program.

in an era of global climate change) and evidence from satellite tagging that green turtles nesting in the Sayang-Piai rookery in northwest Raja Ampat subsequently return to feeding grounds as far away as southern Borneo and southwestern Philippines.

The second set of strategic conservation activities, conducted simultaneously with the scientific characterization of Raja Ampat, has focused on creating an “enabling environment” for effective conservation and collaborative management of Raja Ampat's rich marine resources. Over the past 3 years, we have worked intensively with the local government and citizens in the 90 remote villages of Raja Ampat to both better understand their development aspirations and

align them with a sustainable vision for the area while also dramatically increasing local understanding and appreciation of Raja Ampat's biodiversity, the threats to it, and the need for local leadership in effectively managing it. Notable achievements under this initiative include the development of a network of community conservation radio stations and a monthly full-colour newspaper that explores a different conservation issue in depth each month, the launching of the *MV Kalabia* “floating marine conservation education center” that now delivers a 3-day interactive curriculum to all the villages in Raja Ampat, and the successful implementation of the Raja Ampat Marine Tourism User Fee, which ensures that local communities derive health and education benefits from the burgeoning marine tourism in the area.

The final strategic initiative (based upon the scientific understanding and strong local community support generated by the first two strategies) has been to facilitate the establishment of an ecologically-connected network of marine protected areas (MPAs) across Raja Ampat. In May 2007, under the wise leadership of Regent Marcus Wanma and with the support of Indonesia's Minister of Marine Affairs and Fisheries Fredy Numberi, the Raja Ampat government declared a network of seven MPAs that together covers nearly 900,000 hectares and approximately 45% of Raja Ampat's coral reefs and mangroves. Effectively implemented, these MPAs should ensure the long-term health and sustainability of Raja Ampat's marine ecosystems.

These three initiatives have made impressive progress over the past 5 years, but there is still much work to be done. Raja Ampat's MPA network needs to be “operationalized” and the restrictions on destructive and unsustainable fishing practices strictly enforced. Marine tourism development must be carefully managed to provide optimal benefits for local communities while minimizing its “footprint” in the area. Perhaps most importantly, we face a continuous uphill battle to impress upon policy-makers and community leaders the need to wisely conserve and manage this area, as the seemingly inexhaustible global demand for commodities ranging from fish to minerals to timber products continues to create strong short-term financial incentives to mine all of these resources from Raja Ampat.

I invite you now on a spectacular, colour-saturated journey through the pages of this book to experience Raja Ampat in a most unique fashion, through the lenses of 10 of the best underwater photographers on the planet. Each feels passionately about the need for long-term conservation of this extraordinary region, and has donated many of their best photographs of the area for this book in the hopes that it will inspire local, national and indeed global commitments to do whatever is necessary to ensure the wise stewardship of the world's most biodiverse seascape. On behalf of Conservation International and our local and international conservation partners, I can assure you that we are strongly committed to this vision, and we greatly appreciate your support in helping to achieve it. Enjoy your journey, and welcome to the Realm of the Four Kings!



The “floating ranger station” *Inbekwan* patrolling the Dampier Strait MPA.



Raja Ampat schoolchildren on the marine conservation education vessel *M.V. Kalabia*.



Papua Diving and other marine tourism operators are important conservation partners in Raja Ampat.