



ANIMA MUNDI

Adventures in Wildlife Photography

Issue 5, Year 2 - 1st Quarter, January 2012

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- A SOUND OF TUNDRA** Exploring the Biebrza marshes
- BRAZIL'S ATLANTIC RAINFOREST** Green magic in Ubatuba
- RYTHMS OF AFRICA** A portfolio by Piper MacKay
- SOFT CORALS** Hedgerows of the sea



ANIMA MUNDI

Adventures in Wildlife Photography

HAPPY BIRTHDAY TO US!

Yes, we have good reason to celebrate - after one year's life and four full issues, our online quarterly magazine *ANIMA MUNDI - Adventures in Wildlife Photography* is still very much alive and kicking, which is no mean feat in these difficult times. And yes, again - we're still free for all, and will stay so in the future! Thanks to you all - it's your support and enthusiasm which keeps us standing, and it's just great seeing how constantly and rapidly the number of our readers (and contributors) worldwide keeps growing.

Readership is growing so fast, in fact, that we would like to take advantage of this occasion to repeat once more our magazine mantra - each issue of *ANIMA MUNDI - Adventures in Wildlife Photography* is literally and lovingly handmade, and its quality deserves to be comfortably enjoyed at leisure. The high-resolution pdfs should always be fully downloaded to one's desktop from our home page and then - and only then - should the issue be enjoyed! Several readers apparently limit themselves to opening the pdf via their browser, but we strongly discourage this method, as it can be frustratingly slow and make navigation to our active links virtually impossible. Remember - our motto is "Download, Enjoy and Share with All"!

So what's in our big one-candle cake you've just downloaded? Well, plenty of good stuff! We start on page 4 with an exclusive travel feature on Poland's Biebrza marshes - a remote and fascinating wilderness, an endless stretch of wetlands where European elk, beavers and wolves still roam - which we saw and photographed, for a change, when the landscape was aflame with the burning reds and yellows of a glorious autumn. Truly unforgettable! Then, starting from page 46, we serve you another destination, and this time we travel to exotic Brazil - thanks to our contributors, journalist Elsie Rotenberg and biologist Edelcio Muscat, it's beach and rainforest magic in the little-known and threatened environment of

Ubatuba's Mata Atlantica. Follow our Brazilian friends and discover dazzling hummingbirds, colorful birds and rare reptiles in one of the world's most unique and severely endangered habitats. But there's more obviously, as after exploring the wilds of North-eastern Europe and South America we couldn't leave Africa out - so flick to page 78 and be dazzled by our new contributor Piper MacKay's fantastic personal portfolio - a stunning, deeply moving collection of wonderful images shot (or should we say *created*?) by an enthusiastic North American woman photographer who fell in love with the wild beasts and the ancient cultures of Africa. And to top this issue's menu off - here's a great dessert on page 99 with our in-depth essay on the candy-colored, complex underwater universe of the soft corals community. Dive with us along some of the world's most colorful coral reefs and find out what makes them tick!

Still willing for more? Never worry, there's plenty more we're just saving for our upcoming issues in 2012 - we've just come back from an unbelievable four-week expedition to Ecuador (fully detailed travel features on the Amazon and the Andes will be coming up soon), our friend David Hemmings is busy shooting in the Falklands as we are writing, there's a juicy feature on the pink dolphins of the Rio Negro in the making and we're preparing to leave for another four-week trip to a fantastic destination we're very familiar with - Borneo! And then of course we're cooking up a number of mouth-watering personal portfolios from several incredible nature photographers, and even a new regular feature which - with a bit of tongue-in-cheek - we have decided to call *Beauty of the Beast*. Curious to know more about it? Just wait for our next issue in April 2012 - in the meantime...

Have a good trip!
Andrea & Antonella Ferrari
www.animamundimag.com

■ A male Roe deer *Capreolus capreolus* stands transfixed, looking at us for a precious few seconds - one of the many beautiful encounters we had in the Biebrza marshes of Poland.

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THE PARTING SHOT



We appreciate your feedback - constructive criticism, useful suggestions and interesting contributions are most welcome.

Please drop us
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TO TRAVEL IS TO LEARN.

When Giovanna Holbrook took on the challenge of leading two University of Florida science professors and a group of naturalists to the Galápagos Islands in 1971, she had no way of knowing the lasting impact that experience would have on her life and on the lives of those traveling with her. The group journeyed throughout the archipelago aboard a retired navy vessel, propelled by their spirit of adventure and thirst for knowledge. At that time, the Galápagos was just celebrating its twelfth year as a national park, conservation work at the Charles Darwin Research Station was still in its infancy, and tourism in the islands was virtually non-existent.

More than thirty years later, Holbrook Travel continues to serve the needs of teachers, students, academic institutions, and nature lovers. Although many changes have taken place over the years, Holbrook Travel has taken great care to remain true to its roots. As news of environmental concerns and world conflicts continue to fill the airwaves, it seems more important than ever to help people gain a better understanding and appreciation of the natural world and other cultures through firsthand experiences. In the words of Andrea Holbrook, president: “Our goal is to try to continue the great work my mother started.”

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Andrea & Antonella Ferrari's

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THE BIEBRZA MARSHES
OF NORTH-EASTERN POLAND

A SOUND OF TUNDRA

European Elk, beavers, adders, wolves
and a multitude of birds
find their home among peat bogs,
birch woods and a sea of grass



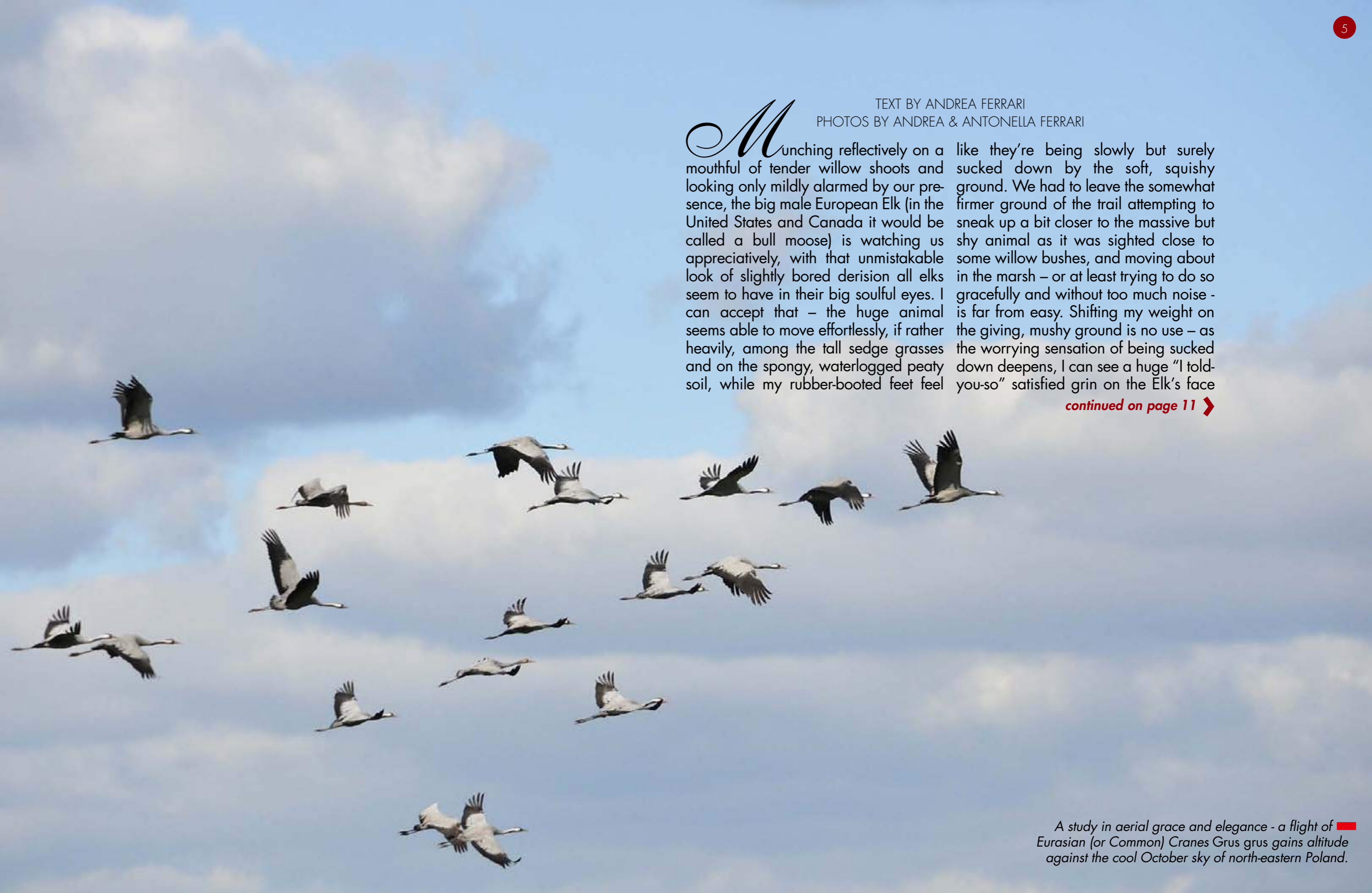
■ A male European Elk *Alces alces* in its prime and with a full set of antlers - one of the Biebrza marshes most sought-after and thrilling encounters for wildlife photographers.

TEXT BY ANDREA FERRARI
PHOTOS BY ANDREA & ANTONELLA FERRARI

*M*unching reflectively on a mouthful of tender willow shoots and looking only mildly alarmed by our presence, the big male European Elk (in the United States and Canada it would be called a bull moose) is watching us appreciatively, with that unmistakable look of slightly bored derision all elks seem to have in their big soulful eyes. I can accept that – the huge animal seems able to move effortlessly, if rather heavily, among the tall sedge grasses and on the spongy, waterlogged peaty soil, while my rubber-booted feet feel

like they're being slowly but surely sucked down by the soft, squishy ground. We had to leave the somewhat firmer ground of the trail attempting to sneak up a bit closer to the massive but shy animal as it was sighted close to some willow bushes, and moving about in the marsh – or at least trying to do so gracefully and without too much noise - is far from easy. Shifting my weight on the giving, mushy ground is no use – as the worrying sensation of being sucked down deepens, I can see a huge "I told-you-so" satisfied grin on the Elk's face

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A study in aerial grace and elegance - a flight of Eurasian (or Common) Cranes Grus grus gains altitude against the cool October sky of north-eastern Poland.



Dominated by dogwood, spindle-tree and willow, the Biebrza landscapes in October offer enchanting vistas and stunning panoramas - a boon for the landscape photographer.



■ A few plants are still in flower as a male Roe deer *Capreolus capreolus* emerges - like a legendary faun of antiquity - from the tall grasses and bullrushes of the marsh.



Looking like a perfectly innocent puddle, a peat bog pit dug by peat collectors is in fact an almost bottomless, deadly trap for the unwary animal passing by.

Common adders *Vipera berus* are the only venomous snakes found in northern Europe. This beautiful but very shy species is quite commonly encountered in Cerzwone Bagno.





The Eurasian Lynx *Lynx lynx* is one of the largest predators of European and Siberian forests. This stunningly beautiful species is however extremely wary and almost never sighted in the wild. Biebrza's acidic soils are locally dominated by heathlands, where Ericaceae such as *Calluna vulgaris* are often abundant.



through my telephoto lens, and the uncomfortable feeling of being swallowed up alive and forever by a bottomless peat bog like some relic of the Pleistocene presents itself with utmost clarity. Of course having a big cumbersome backpack full of photo equipment on my back doesn't help, and when a stream of icy, crystal-clear bog water suddenly rushes down my calf soaking my foot I finally explode in a muttered curse. The big elk, predictably, looks at me once more, snorts the expected derisory comment, and canters away, disappearing among the tall grasses with an elastic, rubbery, slow-motion gait. But it's a draw – he got the last laugh, but I got my photo!

Walking for miles in sticky, deep mud or in ankle-deep, clear and ice-cold water on soft, spongy, treacherous vegetable mats which are in the process of being transformed into peat is indeed part and parcel of the Biebrza Marshes experience – the well-kept wooden walkways, the occasional drier higher ground and the birch-topped, post-glacial sand dunes incongruously emerging now and then like small islands from the mesmerizing, endless sea of grass at Czerwone Bagno ("The Red Swamp") are somewhat unexpected and welcome luxuries after a long, wet slog.

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*The endangered green
elves of Europe's
imperilled wetlands*



Severely endangered elsewhere, the European Tree Frog *Hyla arborea* is still commonly encountered in Biebrza during spring and summer (photo Lukasz Mazurek).



An adult female European Elk *Alces alces* grazes peacefully in the late afternoon light. Despite their size, Elks are very shy and not easily approached.



The marshes' permanent waters are mostly exceptionally clear and very cool, hosting a huge variety of animal and plant species.



■ A Roe deer *Capreolus capreolus* freezes among the thick shrubbery of a fern mire. The alder woods encircling the marshes offer excellent chances to view Roe deer and European Elk.

*A safe haven for
beautiful waterbirds
persecuted elsewhere*



The Northern Lapwing *Vanellus vanellus* is one of Europe's showiest birds. Sadly, this beautiful species can still be hunted in some countries (photo Lukasz Mazurek).



■ A flaming sunset over the marshes offers a background to a baby Slow worm *Anguis fragilis*, a legless lizard species often found on the sand dunes of Czerwone Bagno.

■ Baby adders *Vipera berus* use their yellow-colored tail tip as a lure to attract lizards and frogs. These elegantly marked snakes will only bite in self-defense (photo Lukasz Mazurek).



And yet the marshes are only one of the innumerable facets of the Biebrza National Park, a complex, multi-layered environment stretching for 1.160 square kilometers in the remotest corner of North-Eastern Poland, along the border with Belarus. This is a little European Amazon, a flat, wide river valley counting scores of labyrinthine smaller rivers, tributaries and canals which snake through open meadows and cultivated fields, impenetrable reed and sedge beds, fairy-tale fen mires, waterlogged peat bogs, swampy alder forests, birch and spruce woods and even enormous sand dunes left over by the last glaciation – a relic

swamp like no other, the open door to the tundra further north, and the last and only European lowland river valley with an intact longitudinal and cross-sectional hydrology. No wonder then if this richly varied environment and its many different habitats host an exceptional number of plant and animal species.

Rather than visiting the Biebrza valley in late spring or early summer – when thousands of breeding and migratory birds congregate in the marshes and the nearby meadows, attracting scores of birdwatchers and wildlife photographers from all over Europe – we chose to visit in October, when the

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■ *The Biebrza marshes often offer stunning vistas - cloud-dotted bright blue skies, open wetlands and birch woods "islands" conjure iconic images of the European North.*





Flooded alder woods and bogs are an extensive, permanent feature of the Biebrza marshes. These are an ideal environment for amphibian species.

A world of water and leaves where ancient mammals roam



■ A Red deer *Cervus elaphus* stag shows a magnificent set of antlers as it cautiously negotiates the mushy, peaty floor of the Biebrza marshes. This is a rather uncommon encounter.

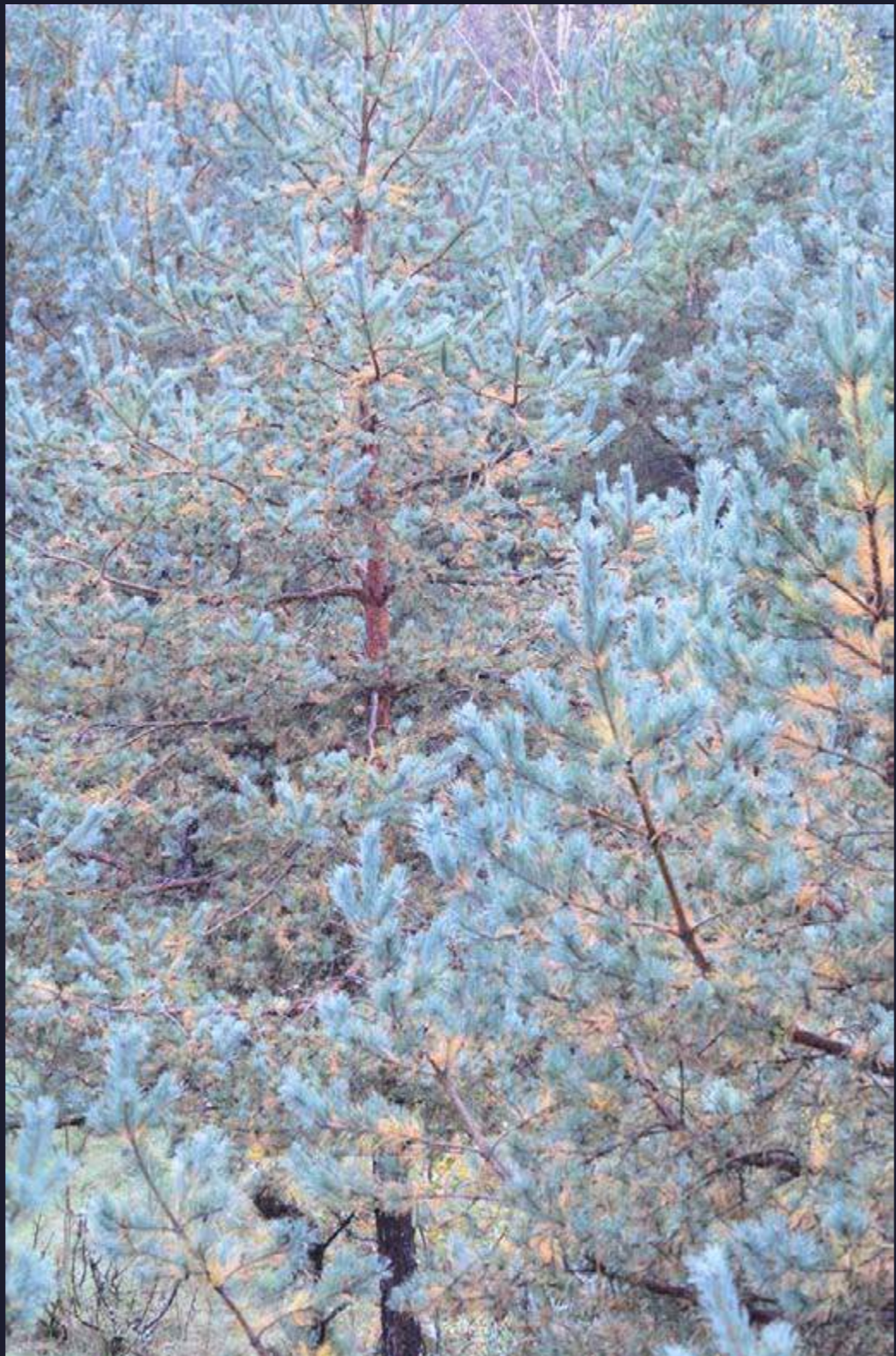
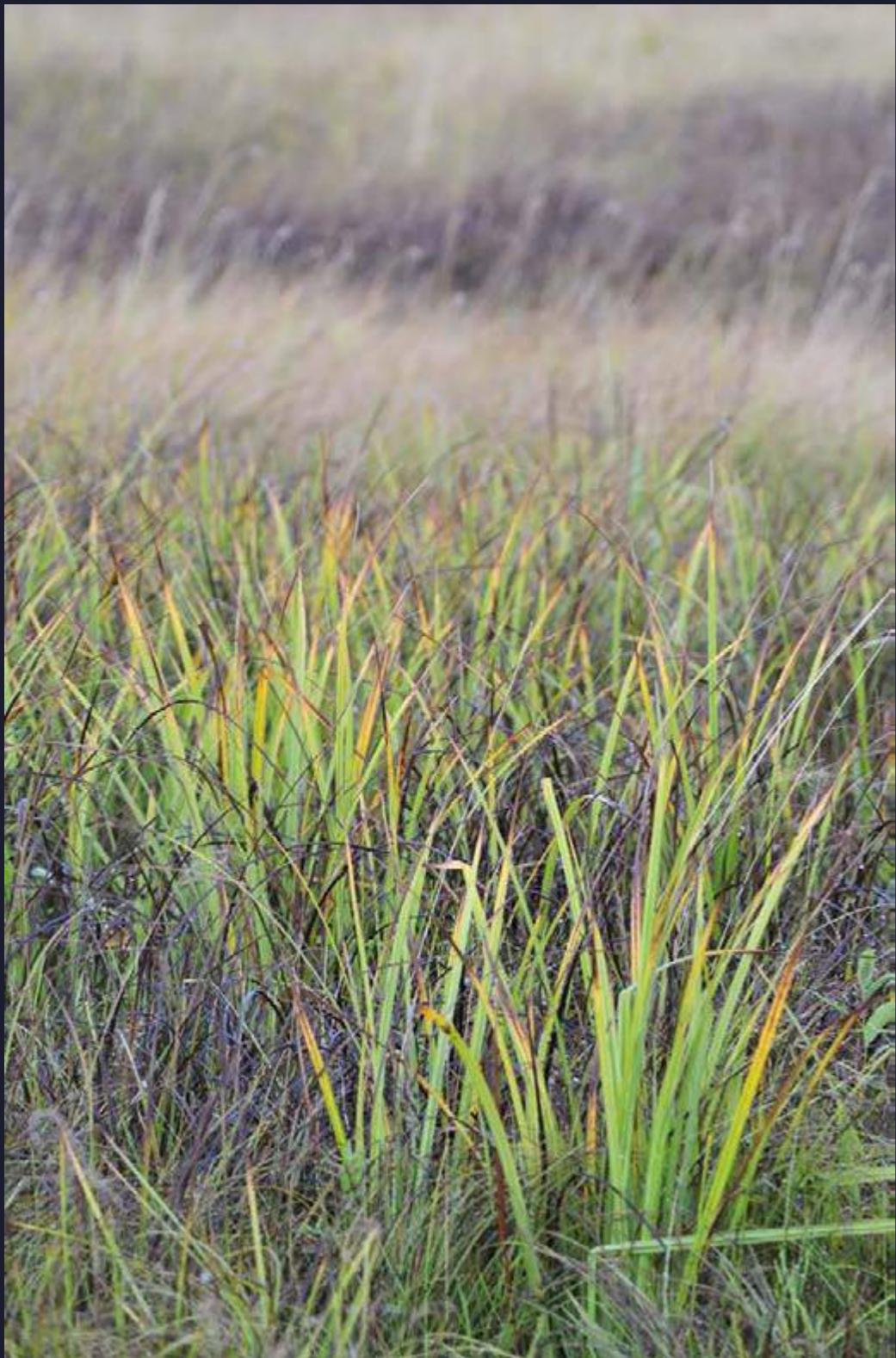


Frozen in crystal-like frost, the golden grasses of the marsh briefly - and gloriously - shine for a few seconds in the glow of the dawning sun. The bright red berries of a Guelder rose *Viburnum opulus* offer an equally vibrant, albeit longer lasting, show of beauty in the warm afternoon sun.





An adult European Elk Alces alces female emerges cautiously from a willow bush. She was part of a family group - both parents and a calf: her partner can be seen in the opening spread of our article on page 4.



■ The difficulties encountered in approaching the largest mammals found in the Biebrza marshes are more than compensated by the dazzling color palette and variety shown by the vegetation's autumn foliage.

colorful autumn foliage is at its stunning best and the resident male Elks – being in rut - sport their distinctive antlers. Eurasian Elks are somewhat smaller than their New Continent relatives, and they sport smaller and less palmated sets of antlers, but are fascinating and rather impressive animals in their own right, of course – the only other place in Western and Central Europe where they can be seen with such frequency is Scandinavia, ie Sweden, Finland and Norway. “Smaller” here is of course a relative term, as a mature bull can stand more than 2 meters tall at the shoulder and weigh more than 700 kgs – wolves hunting in packs are the only predators being able to take one down. The relative absence of breeding birds in October is then more than

compensated by the other species now roaming undisturbed the endless marshes and the mysterious, silent spruce and birch woods - Red and Roe deer in rut (a strange and unusual sight among the sedge grasses of the marshes!), beavers, which are slightly less nocturnal and more active at twilight at this time of the year (in fact the river Biebrza takes its name from the word “bòbr”, Polish for “beaver”), Red fox, Eurasian lynx, Eurasian wolf, Common adders preparing for their long winter sleep, Fire-bellied toads, Slow worms and the occasional Grass snake, while among birds we might expect to see a few species of woodpeckers, flocks of Common cranes, Whooper Swans and – with a bit of luck – even the majestic White-tailed Eagle.

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Birch trees can be especially colorful in autumn - their silver-white, straight trunks crowned by the pale green, gold and brass leaves of the crown.



■ *Several apparently endless expanses of the Biebrza marshes are all but impassable, requiring the use of canoes or inflatable rubber boats. Such clear-water flooded areas teem with amphibian and insect life.*



■ A Red fox *Vulpes vulpes* flashes suddenly across a wet meadow, oblivious of our presence. This was a totally unexpected and truly exhilarating encounter even if it only lasted a few seconds.

Expecting the unexpected is the rule of wildlife photography



■ A large flock of Common cranes *Grus grus* forages undisturbed in a hamlet meadow. In a few days these stately birds will start their migration to Africa. The whole world's population of this species counts about 220.00 individuals - a frighteningly low number.



■ A stunningly beautiful male Roe deer *Capreolus capreolus* is frozen in mid-air by the camera's click as it runs (and urinates!) from an unseen pursuer. The brightly-lit, open meadows bordering the marshes offer many unexpected, thrilling encounters with wild animals.





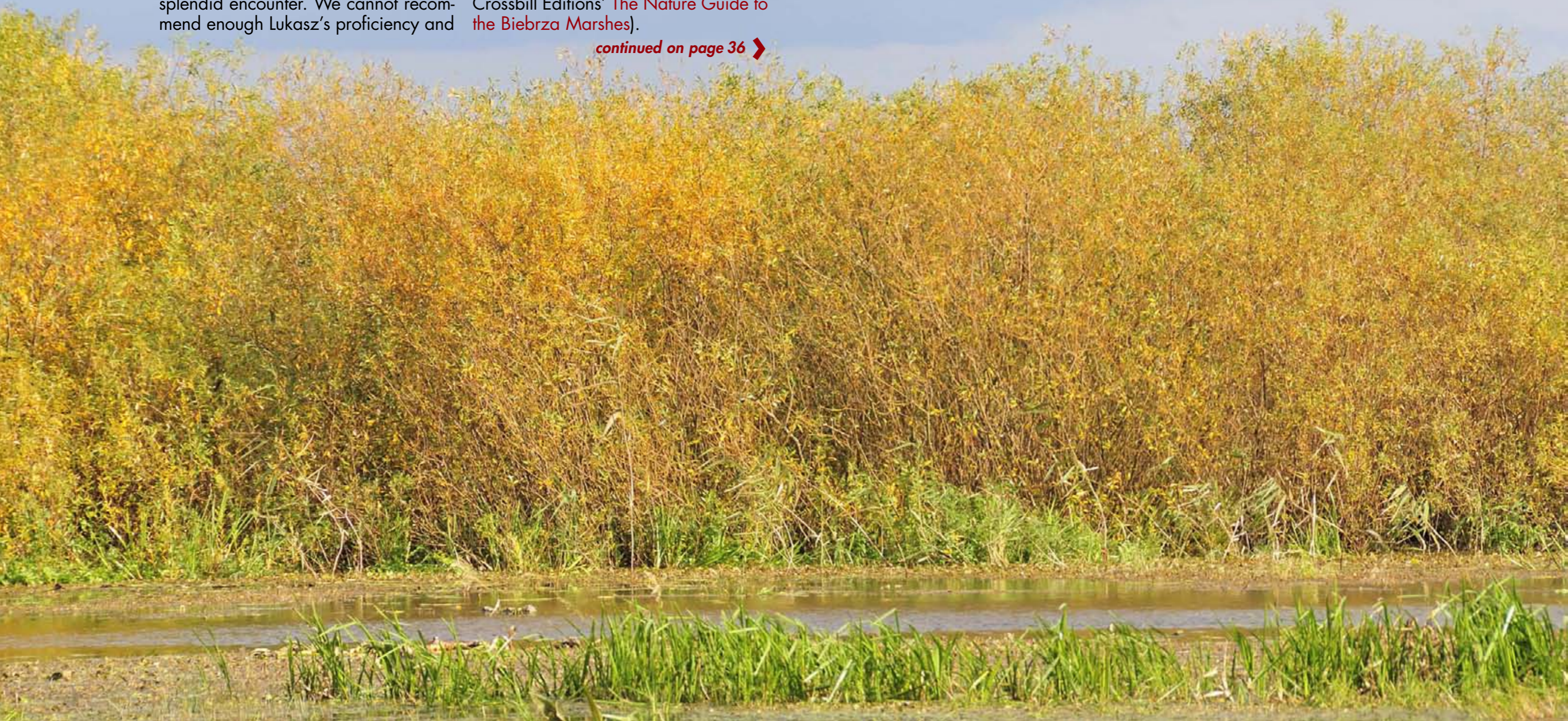
A dark, brooding October sky contrasts starkly with these oaks' bright autumn foliage. A ploughed field in the foreground is testimony to the human presence in Biebrza.

Thanks to the tireless efforts of our guide and friend Lukasz Mazurek of WildPoland.com (with whom we had already successfully visited Bialowieza National Park, see [Anima Mundi issue 2](#) for a full trip report) we were not disappointed, and each and every one of our long treks across the Biebrza valley was punctuated by some truly splendid encounter. We cannot recommend enough Lukasz's proficiency and

deep knowledge of the area – getting around the confusing jigsaw of Biebrza's different routes, forest trails and vantage points really requires a guide of his experience to maximize results, and after all he's the author of the highly informative [Biebrza Site Guide](#) (another book one cannot do without when exploring the area is Crossbill Editions' [The Nature Guide to the Biebrza Marshes](#)).

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A bright-yellow hedge of cropped willows shines in the biting, crystal-clear air of a late autumn afternoon. The marshes are almost deserted at this time of the year.





Two facets of Biebrza - the clear-water flooded meadows and a Common Toadflax *Linaria vulgaris* blooming on the dry, wind-swept sand dunes of Czerwone Bagno.

A sudden white flash of wings among the burnt gold of dry grasses



A Great White Egret *Egretta alba* (current synonyms are *Ardea alba* and *Casmerodius albus*) takes flight from the marshes (photo Lukasz Mazurek).



The softly-hued autumn landscape of the Biebrza valley, criss-crossed by countless rivulets, slow streams and tributaries of the main rivercourse.



A subadult European Elk Alces alces (notice its first season small, unbranched antlers) negotiates the marshy wetlands thanks to its splayed specialized hooves.



Birch woods top the extensive sand dunes system of Cerzwone Bagno, a relict of the last glaciation. This is an ideal environment for many reptilian species.

Black-tailed Godwits *Limosa limosa* can be frequently observed in Biebrza in late spring and early summer, when the marshes' wetlands become a veritable paradise for birdwatchers (photo Lukasz Mazurek).



And yet make no mistake, large mammal sightings and wildlife encounters in general are not easy to achieve in this environment: most species are active in low-light conditions at dusk and/or twilight (especially beavers, which can be frustratingly difficult and rather disappointing subjects), and getting close to subjects is made even more difficult by the nature of the terrain itself, which is often treacherously waterlogged and often impossible to negotiate. This, of course, makes searching for them so much more interesting, and adds immensely to the satisfaction when one is able to get a decent shot.

But even if one were not to see one single animal – mammals in particular are very shy here - one's visit to the Biebrza marshes would be absolutely unforgettable, as the dizzying variety of habitats and the stunning color palette of the autumn vegetation in October have very few equals. Scenic landscapes which can be viewed from well-established vantage points are countless, and the highly variable weather and lighting conditions typical of the season can be a landscape photographer's dream come true. Bathed in the cool, muted light of the impending autumn evening, the open countryside shimmering in an ice-cold

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Click on the images and watch six short videos on the Biebrza marshes environment.





The open meadows and cow pastures around Biebrza are seasonally shrouded in cobwebs, creating hauntingly beautiful landscapes. Right, a Common or Green Frog *Rana* sp. (probably *lessonae*) in a shallow roadside pool - Biebrza's amphibians can still be active at surprisingly low temperatures.



*The calls of waterbirds
fill the ice-cold air of
a glorious morning*



A flock of White-fronted Geese Anser albifrons takes flight, with two Whooper swans Cygnus cygnus and a lonely Mute swan Cygnus olor in the background .

*The Eurasian wolf *Canis lupus lupus* is Biebrza's apex predator, with a few small groups prowling the area. Sighting one in the wild is exceptionally difficult.*

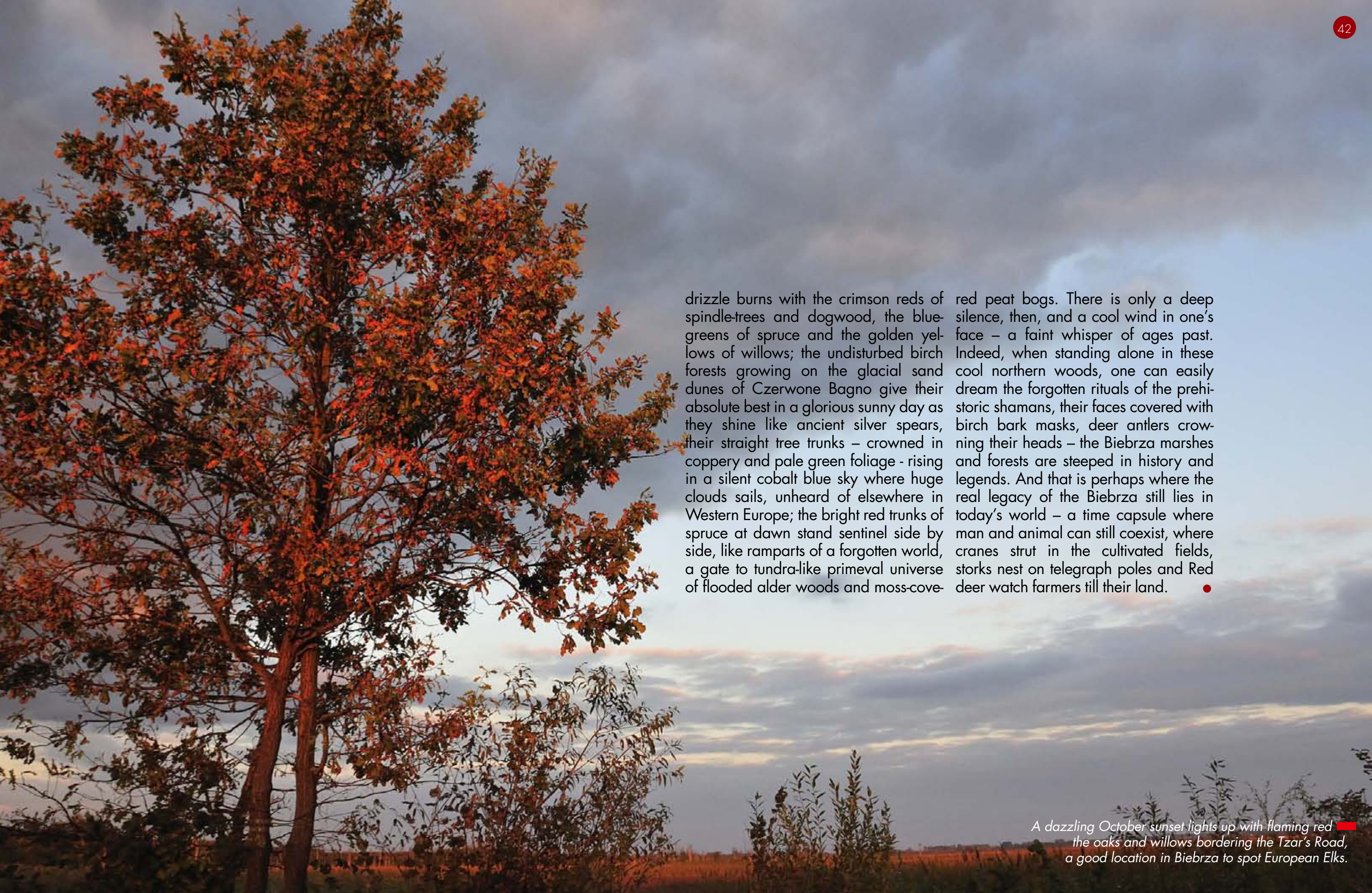


European beavers *Castor fiber* are very shy and almost exclusively active at twilight, making for very frustrating camera subjects. The Biebrza takes its name from the Polish word for beaver (photo Lukasz Mazurek).





■ Fruiting spindle-trees *Euonymus europaeus* create stunning vistas in the autumnal landscapes of the Biebrza wetlands. The very low temperatures are a deciding factor in the brightness and intensity of its October colors.



drizzle burns with the crimson reds of spindle-trees and dogwood, the blue-greens of spruce and the golden yellows of willows; the undisturbed birch forests growing on the glacial sand dunes of Czerwone Bagno give their absolute best in a glorious sunny day as they shine like ancient silver spears, their straight tree trunks – crowned in coppery and pale green foliage - rising in a silent cobalt blue sky where huge clouds sails, unheard of elsewhere in Western Europe; the bright red trunks of spruce at dawn stand sentinel side by side, like ramparts of a forgotten world, a gate to tundra-like primeval universe of flooded alder woods and moss-cove- red peat bogs. There is only a deep silence, then, and a cool wind in one's face – a faint whisper of ages past. Indeed, when standing alone in these cool northern woods, one can easily dream the forgotten rituals of the prehistoric shamans, their faces covered with birch bark masks, deer antlers crowning their heads – the Biebrza marshes and forests are steeped in history and legends. And that is perhaps where the real legacy of the Biebrza still lies in today's world – a time capsule where man and animal can still coexist, where cranes strut in the cultivated fields, storks nest on telegraph poles and Red deer watch farmers till their land. ●

A dazzling October sunset lights up with flaming red the oaks and willows bordering the Tzar's Road, a good location in Biebrza to spot European Elks.



The legendary great denizen of Europe's ancient forests

■ Deep in the thickly forested alder bog woods, one last lucky encounter with a strikingly beautiful adult male European Elk - you can't get much closer than this!

At-a-glance travel guide

COUNTRY OF DESTINATION: POLAND



USEFUL TIPS FOR YOUR EXPEDITION

Some simple, common sense, field-tested advice and information to make the best out of your trip and avoid hassles, worries and problems

ROUTE: Your international flight will land at Chopin Warsaw International Airport, a thoroughly modern and well organized facility. From there it's a comfortable five-hour car drive due north-east on good, well-maintained roads to your destination, Biebrza National Park, close to the border with Belarus. There are many historically significant and scenic spots along the way so keep cameras ready.

MEANS OF TRANSPORT: You might rent a car in Warsaw and drive yourself to Biebrza but we do not advise you to - save yourself the trouble and have the trip organized by a guide who is familiar with the routes and the best wildlife viewing spots. Once in the Park you will have to drive for short distances daily and then walk - a lot - on very easy trails or in

the marshes themselves, occasionally in very cold and ankle-deep water, peat and/or mud.

CURRENCY: It's advisable to change one's own currency in the local one (Polish Zloty) upon arrival in Warsaw to save loss of valuable time looking for small local bank branches later on.

ACCOMODATION: Pick your choice from the beautiful *Zagroda Kuwasy Hotel* to simple, family-run cottages. There's a bit for everybody, so it really depends on your preferences. We elected to stay in small, cozy family-run wooden cottages to have a real taste of local life and traditional cuisine and did not regret it. Even basic, unexpensive accomodation is usually very clean and well heated.

FOOD: Fantastic! Heavy and abundant stuff due to the climate - plenty of smoked and cured pork, venison, herring, cabbage, pickles and preserved fruit. Surprisingly, little or no beef is consumed locally. Beware - this isn't an ideal destination for strict vegetarians! Don't miss *pirogi* (stuffed dumplings), the local *bortsch* (the celebrated eastern european red beet and sour cream soup) and Polish *kompot*, a brew of dried fruit and hot water which is both warming and refreshing - and which goes surprisingly well with the hearty food of the area.

LANGUAGE: Polish - obviously - and some German and Russian. Very little or no English at all is spoken in eastern Poland - one more reason to have a guide you can communicate with along.

A deep connection between history, culture and nature



WORRIES: None. Locals are very decent, private, reasonably friendly country folk. Crime is virtually non-existent in the countryside. Food and drink everywhere are absolutely safe. Trails are easy to follow and usually well marked, there are no seriously dangerous animals (well, don't disturb big Elks or Wild boar!) and you will be really close to hamlets and villages most of the time anyway.

HEALTH: No worries worth mentioning, really.

CLIMATE: Continental European - reasonably warm summers, cool mid-seasons, freezing winters with lots of snow. Can be very cold at dawn and dusk - dress in layers. Good, well worn-in hiking boots and rubber wellingtons are an absolute must as there's a lot of marshy, boggy terrain to

negotiate daily. Photography in the marshes can be occasionally frustrating for the presence of very high grasses and hedges, but light conditions during the day are usually excellent, presenting exceptionally rewarding opportunities to landscape photographers all year round.

BESIDES: Besides its well-known wildlife, Poland offers all the extraordinary attractions of one of the great cradles of European culture. Local hamlets in the north-eastern area provide interesting photo opportunities with their colorful wooden houses, and in Tykocin, nearby Bialowieza, one should not miss visiting the baroque Synagogue Bejt ha-Kneset ha-Godol, built in 1642. It will offer the opportunity for some sombre reflections about some of the Country's darkest moments in history

as the Jewish population of Tykocin - numbering 2.000 - was slaughtered *en masse* by the Nazis on 25-26 August 1941. Then of course there's the rebuilt and vibrant center of old Warsaw - razed to the ground during the Warsaw Ghetto Uprising of 1944 and subsequently rebuilt brick upon brick with spectacular results - which one should not miss visiting before flying back home at the end of the trip. Poland offers many other exceptionally beautiful, not-to-be missed destinations - such as the historically and artistically significant Krakow, a jewel of a city - which however lie beyond the scope of this guide. For art, architecture and music lovers it is a destination of a lifetime, and one of the most beautiful destinations one can think about if wishing to mix culture and nature/wildlife during a single trip within Europe. ●

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“My experience was EXCEPTIONAL! The trip exceeded my expectations in all areas. I hoped to get in a position to see owls and couldn't possibly have been happier. It was abundantly clear that David invested significant time and effort prior to the arrival of the group in scouting the area around Quebec and Ontario. He knew exactly where to go to find every species of owl. His knowledge and efforts were very much appreciated by the entire group. My primary objective was just getting in a position to photograph owls and was not expecting much in the way of photographic instruction. I was very pleasantly surprised and was very happy with the instruction. Prior to the trip I had a love/hate relationship with auto focus as it applies to photographing birds in flight. I've struggled with this for years. While I have a lot more to

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David Hemmings - President, Nature's Photo Adventures

learn, and need to work at honing my skills, the trip with NPA helped me tremendously in being able to photograph birds in flight. Photographing birds in flight was my main objective. Prior to the trip I was nearly clueless in comparison to my skills after the trip. You can also see from my bird list that I found the trip productive from a birding perspective as well”.

Kevin McCarthy, USA

“I recommend NPA workshops! The level of services by workshop leaders was excellent. Quality of photographic instruction was exceptional and they

were always on hand to solve issues that arose, and I had more than my share of equipment issues. Quality of wildlife provided was good and I was amazed at how easily the subjects accepted new setups provided. Locations visited were right on for the species targeted. My most memorable moment was using the flash setups the first time and capturing an image of the Swordbill Hummingbird. I feel that my level of photography has improved with the custom functions that were set up on my camera for me and the resulting images that I obtained. Overall experience and

expectations were achieved and we were fortunate to have a very compatible group on our tour, which made it very enjoyable. This was my first workshop and I would recommend them to friends”.

Rosemary Harris, Canada

“Great trip, great experience and great workshop leader. Great opportunity for capturing images of magnificent and uncommon (in southern USA) birds. Organizers contribute to great group dynamics and superb attitude. Cool techniques”.

Eric Grossman, USA



info@naturesphotoadventures.com

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Canada: Newfoundland - Puffins & Gannets • British Columbia - Spirit Bears • Alberta - Black Bears & Elk • Churchill - Breeding Arctic Birds and Polar Bears • Ontario & Quebec - Snowy Owls and Great Gray Owls
United States: Alaska - Kodiak Bears & Bald Eagles • Florida - Raptors **Asia:** Borneo - Orangutans, Proboscis Monkey, Broadbills • India - Bengal Tigers and birds **Africa:** Botswana - Chobe River - Elephants and Hippos • Kenya & Tanzania South Africa - African Penguins and the Big 5 **Central & South America:** Peru - Machu Picchu and The Amazon • Costa Rica - Hummingbirds • Brazil - The Pantanal & Jaguars

LIVING IN THE MATA ATLANTICA

GREEN MAGIC IN UBATUBA

Endangered and little known beyond its national boundaries,
Brazil's Atlantic Rainforest is one of the world's last ramparts of untouched wilderness

■ The idyllic tropical landscape of Ubatuba's coastline, with ocean and rainforest intermingling continuously to create a unique habitat.

TEXT BY ELSIE ROTENBERG
PHOTOS BY ELSIE ROTENBERG
AND EDELICIO MUSCAT

This is a magical place. As a jaded big city dweller that left everything behind seven years ago to start afresh in Ubatuba, I could easily have been completely out of my element. From concrete skyscrapers and traffic jams to hummingbirds in the living room and pit vipers in the garden is a huge leap! I won't say it is for everyone, but it is certainly working for me. So what is it about this place, then? First of all, the wondrous Atlantic Rainforest. Ubatuba sits on the coast in the northeast corner of the state of São Paulo, Brazil. Of its 711 square kilometers, 83% are in the Serra do Mar State Park – the largest proportion of preserved forest in any county in Brazil. Sadly, while the Atlantic Rainforest is the most biodiverse biome in the planet, it also is, by all accounts, the most threatened. Originally it covered around 15% of Brazil's area, amounting to 1.3 million square kilometers. It extended from the coast up to 2,000 meter-high mountaintops, encompassing diverse ecosystems along the shores of 17 states. Today, only about 7% of that total remains in 13 states, most of it very fragmented. That makes Ubatuba a relevant area of contiguous forest, where animal and plant species, many of them endemic, can still thrive. Truth be told, I barely knew anything about the forest when I moved to Ubatuba.

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The small rivers and streams descending to the Atlantic Ocean from the steep coastal mountain ridges contribute to the unique Mata Atlantica ecosystem.



■ Puruba, one of Ubatuba's many Atlantic beaches, much loved by tourists and locals alike. Below, a male Black-backed Tanager *Tangara peruviana*. This species of south Brazil migrates north during winter, but little is known about its habits (1), a female Black-throated Mango *Anthracothorax nigricollis*. The male of this hummingbird species is missing the black stripe down its throat and abdomen (2), a rare Marmoset *Callithrix aurita* (3) and a baby Marmoset, possibly a cross between *C. aurita* and *C. jacchus* (4).





■ A Swallow-tailed Kite *Elanoides forficatus* swoops over one of Ubatuba's many beaches. This bird graces the skies of the area very occasionally, always in groups – it is one of the rare gregarious raptor species – and it is an agile and very elegant flyer, commonly performing fantastic mid-air acrobatics.

What I did know about were its stunning beaches (80 of them, some busy, others accessible only by boat or trail) and the magnificent scenery comprised of ocean, islands, mountains, lots of green and boulders, certainly one of Brazil's most beautiful coastal stretches. Driving along, there are moments in which stopping just to gape is almost compulsory. Oh, and I also knew it rained. A lot. Locals and tourists alike jokingly call Ubatuba "Ubachuva" – "chuva" in Portuguese means rain. No wonder: the area receives over 2,500 millimeters of yearly rainfall. People may hate the rain because it wrecks their day at the beach (and Brazilians love the beach), but I embrace it because it created this lush, chaotic, sensual, fascinating paradise, where 30-meter high trees, a mind-boggling variety of plants and countless animal species coexist. I have it as my next door neighbor, and more often than not it makes life that much more interesting, albeit sometimes a bit dangerous.

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Steep cliffs and deep ravines where rainforest and seaside meet

Steep rock cliffs swathed in vegetation, sandy beaches and the constant pounding of the oceanic surf are the essential ingredients of the Atlantic Rainforest biotope.





Left, portrait of a White-edged treefrog *Hypsiboas albomarginatus*. Right, a stunning Swallow-tailed Hummingbird *Eupetomena macroura*, one of the most beautiful species to be seen in Ubatuba's Atlantic Rainforest (1) and the colorful inflorescence of an *Aechmea nudicaulis*, a commonly observed bromeliad which is native to the Atlantic Rainforest (2).





■ *River mouths emptying in the Atlantic Ocean are fringed by thick mangrove woods - an essential habitat for fish fry and juveniles of several marine and terrestrial species.*

Having a Brazilian banana spider throw itself at you, a pit viper sunning atop a rock in the garden, or wasps zooming into your office can stop you dead in your tracks. But I never forget that I am the invader – not the crawling, walking, slithering or flying visitors that occasionally call my home their own. I’ve learned to live with them just as well as I live with armadillos and teju lizards that drop by, or the charming female Green Honeycreeper that perches on the chair back in the kitchen, vociferously demanding more banana. For a few years I simply enjoyed being here, taking advantage of the clean air, the ocean, the majestic scenery and the peace. I gradually slipped into “island time”, relaxing and leaving behind the stresses and exasperation of urban existence. And then I discovered birds.

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■ *Southern Lapwings*
Vanellus chilensis
 can be seen almost
 anywhere where there is
 grass or water. They lay
 their eggs on grass
 and will readily attack
 intruders, swooping
 down repeatedly.
 Below, *Black-legged*
Dacnis Dacnis nigripes,
 female. This is an
 uncommon bird (1),
Painted Coral Snake
Micrurus corallinus (2),
 a male *Blue Dacnis*
Dacnis cayana. This
 lovely bird gave its name
 to the NGO (3), and
 a *Brazilian Squirrel*
Sciurus aestuans,
 endemic to South
 America and quite
 common in Ubatuba (4).



■ Not your typical iconic tropical coastline - the relentless pounding of the Atlantic Ocean contributes here to the creation of a craggy, rocky environment.

A rugged rocky coastline sculpted for eternity by the force of the waves



■ A male Violet-capped Woodnymph *Thalurania glaucopis* hummingbird shows to advantage its dazzling iridescence when lit from the right angle. Far right, a tiny unidentified Praying Mantis nymph (above) and a bright blue Mangrove or Land crab *Cardisoma guanhumi* emerging from its dug-out in the soil (below).





Fishing boats and human habitations dot the Mata Atlantica coastline - testimony to the severely endangered status of this unique habitat and the urgent need to protect it.



■ A trio of snow-white Cattle Egret *Bubulcus ibis* lift off one after the other in a graceful, time-frame-like sequence.

It all began casually with a very, very common Black Vulture that presented me with a good photo opportunity (at the time my equipment consisted of an ultrazoom compact camera), and quickly escalated into a daily game of recording and identifying the birds I saw in my garden. I came up with a hummingbird species that had never been seen in Ubatuba before (identified by a hummer specialist, not myself), and that only pushed me on. I put out feeders with bananas and papaya, and bottles with sugared water. I offered seed. It soon became clear that strange things were happening in my garden. Black-backed Tanager, Blue-naped Chlorophonia, Black-legged Dacnis, Black Hawk-Eagle and other species that weren't everyday sightings in Ubatuba seemed to congregate in my little patch, staying on for a while or just passing by.

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Left, a bromeliad blooms high up in the forest canopy. Right, a male Golden-rumped Euphonia *Euphonia cyanocephala*. This is a yearly winter visitor to Ubatuba, and a precious one: its distribution isn't wide and it is more easily seen at higher altitudes (1), and a Glittering-throated Emerald Hummingbird *Amazilia fimbriata* (2).



And I was out there looking for them. After my garden, the world. Armed with my first dSLR and a decent birding lens, I began to venture outside my little corner of paradise to see what I could see. The Ubatuba bird list comprises around 500 species, meaning a wide variety of places to choose from and a lot of different terrain to explore. I could, for instance, go to Ubatumirim, a huge, gloriously deserted beach, to look for migrant shorebirds and terns; or to the Perequê-Açu or Rio Escuro river mouths to see egrets, herons, cormorants and kingfishers; to Fazenda Angelim for one of the most sought-after endemics, the Buff-throated Purpletuft; to Cambucá for Black-capped Donacobius, Riverbank Warbler, Streamer-tailed Tyrant, Black-capped Becard and many other species; to Folha Seca for a hummingbird fest – 21 species have been recorded there. Or almost anywhere to see stunning birds like the Brazilian Tanager, the Green-headed Tanager and the Red-necked Tanager.

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■ A coastal panorama at sunset shows with great clarity the complex structure of the highly fringed, deeply indented coastline of Ubatuba and its surroundings.

The Mata Atlantica warm, humid environment is rich in orchid species, often seen blooming as here and usually found in the upper storeys of the forest canopy.



*No wonder in Brazil
these tiny birds are
called beija-flor,
flower-kissers*



■ A Saw-billed Hermit *Ramphodon naevius* sips nectar from a banana flower. Endemic to the Atlantic Rainforest in the southeast and parts of the south of Brazil, this is a very territorial and large species - for a hummingbird, of course.



Left, a spectacular rainbow over the Ilha das Cabras and the Atlantic Ocean facing Ubatuba's coastline. Far left, a male Blue-naped Chlorophonia *Chlorophonia cyanea*. More common in southeastern Brazil's higher ground, it shows up in Ubatuba every autumn, sometimes staying the winter (1) and the showy inflorescences of a forest Heliconia (2). Right, a male Violet-capped Woodnymph *Thalurania glaucopis* hummingbird (3) and a hybrid Marmoset, a cross between *Callithrix aurita* and *Callithrix jacchus* (4).



The Atlantic Rainforest in Ubatuba includes restingas and mangroves, lowland and interior forests and high altitude fields, each with its own characteristics and myriad animal species. Mammals are the most difficult animals to see. Within the realm of the Serra do Mar State Park, Picinguaba is the one location where forest meets sea. But there are other such places out of the park, such as Puruba, and a hike through the dense, dappled forest to see a Common Potoo will suddenly end in the bright white and blue of a sunny, deserted beach, making anyone squint. Being a tourist in my own backyard was the beginning of my journey of discovery of Ubatuba and its natural wonders. The ever-changing patterns of sunlight and shadow, the vibrant colors, the smells, the cacophony of birdsong, frogs and insects, the endless parade of fascinating creatures...

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A peaceful image of the coastal landscape of the Indaiá River in Ubatuba shows how seamlessly the rainforest and estuarine/beach environments blend here.





Two Neotropic Cormorants *Phalacrocorax brasilianus* dry themselves in the sun between dives. Below, an exceedingly rare Guanabara Spotted Night Snake *Siphlophis pulcher* from Alcatrazes Island (1), a Brazilian Tanager *Ramphocelus bresilius* - an Atlantic Rainforest endemic and one of its most stunning birds (2), a fruit of the rare *Clusia lanceolata* (3) and a Green-headed Tanager *Tangara seledon*, a noisy, outgoing and very colorful species (4).



*A warm, humid heaven
for hundreds of rare
amphibian and reptile species*

Steep and rocky, the mountain streams flatten out as they near the Atlantic coastline, creating a multitude of perennially warm, humid ecological niches.



■ *Left, a stunning portrait of a rare Golden Lancehead Bothrops (or Bothropoides) insularis, a venomous pitviper species found only on Ilha da Queimada Grande, off the coast of São Paulo. Right, a Common Potoo Nyctibius griseus. It is hard to spot, even when it is perched in an open area, as it blends in perfectly with its surroundings. Resting or asleep during the day, this species is active only during the night (1). Below right, a Blue-winged Parrotlet Forpiss xanthopterygius. This is a highly social species, usually appearing in noisy flocks to feed on fruits and seeds (2).*



I became completely smitten with the forest. Finding out how threatened it was and how close we were to losing our natural heritage and its irreplaceable biodiversity led to the next step: wanting to proactively preserve it. And thus Projeto Dacnis, the non-profit organization I run, was born. The research leg of the NGO is headed by Edelcio Muscat, a wonderfully inquisitive and patient biologist and herpetologist who developed his own view of Ubatuba's diversity through macro lenses. It is a joy to observe him handling the serpents that come his way; with a mixture of respect and tenderness he will eventually coax them into the perfect photo angle, then put them back into the box and set out to release them far from human presence. Edelcio's extensive knowledge of serpents, reptiles and amphibians has earned him a reputation that extends far beyond the borders of Ubatuba. Dacnis is involved in several research projects in and around the county – after all, the Atlantic Rainforest is far-reaching –, in partnership with ICMBio, the federal environmental agency, and Instituto Florestal, its state counterpart.

Two of these projects involve islands where there are fantastic and mythical serpent species; a third project is about surveying animal species in the Cambucá nucleus of the state reserve to develop a conservation and management plan for the area.

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Black or Turkey Vulture Coragyps atratus, an exceedingly common scavenging species found in Central and South America.

■ A huge Land crab shows no fear when approached on one of Ubatuba's many beaches. Below, male Brazilian Ruby Clytolaema rubricauda, a dazzling hummingbird species endemic to the Atlantic Rainforest in the southeast and south of Brazil (1), an uncommonly colorful Jararacuçu Bothrops jararacussu, one of Brazil's most dangerous pit vipers (2), a large Tarantula Vitalius wacketi, a common inhabitant of the Atlantic rainforest (3) and a Clayrobber frog Haddadus binotatus (4).





■ A stunningly colorful male Red-necked Tanager *Tangara cyanocephala*. Females of this spectacular species do not show any orange shades on the wing. These are noisy birds, often showing up in groups to feed on seed or fruit.



Man-made forest trails offer a more open, drier environment. If properly managed, even such areas can be beneficial to the local wildlife and can create a multitude of new habitats.

■ A pair of Southern Caracara *Caracara plancus* - a very common raptor and scavenger in Brazil - mating on the treetop with another lone individual on a branch below. The other birds in the photo are Black (or Turkey) Vultures *Coragyps atratus*.



Closer to home, our 40.5 hectare area of private reserve is undergoing the same process, and more often than not one of us will be there, camera, binoculars and voice recorder in hand, to map out our own turf and study the rare Buffy-tufted Marmosets that made their home there. The property's caretaker, Faustino, was brought up in an Indian village, speaks fluent Tupi, knows more about animals than many scientists and handles serpents better than most. He will phone Edelcio in a state of almost childish excitement to tell him there's a huge jararacuçu or coral snake waiting for him there, or he will call me to lengthily describe the new hummingbird he saw. This kind of enthusiasm and respect for life is what makes Dacnis tick. And it is one of our objectives to instill this attitude in the local communities with which we work. ●



■ *Yellow-headed Caracara* *Milvago chimachima*. This small raptor is commonly encountered in Ubatuba and elsewhere in Brazil. Below, *Chestnut-bellied Euphonia* *Euphonia pectoralis* (1), *Tiger Rat Snake* or *Cribo* *Spilotes pullatus* inflating its neck in a threat display (2), a very common and quite dangerous *Jararacuçu pit viper* *Bothrops jararacussu* (3) and an unidentified, metallic green rainforest spider (4).



1



2



3



4



*A mixed group of Royal Terns *Thalasseus maximus* and Cayenne Terns *Thalasseus sandvicensis eurygnatha*, with adults and juveniles by the surfline.*



Left, a Great Egret *Ardea alba* is reflected in the still waters of a coastal lagoon. Right, a male Yellow-legged Thrush *Turdus flavipes*. This species is found in several parts of Brazil, but it is never common. It hung around at Dacnis because the Brazilian cherry trees (*Eugenia uniflora*) were laden with fruit, one of which is in its mouth (1). Below right, Blue Dacnis *Dacnis cayana*, female (2).



*A precarious
act of balance
between rainforest
and ocean*

Seawater-resistant vegetation such as that of several mangrove species - threatened worldwide - contributes to the ecological balance along most tropical coastlines.

At-a-glance travel guide

COUNTRY OF DESTINATION: BRAZIL



USEFUL TIPS FOR YOUR EXPEDITION

Some simple, common sense, field-tested advice and information to make the best out of your trip and avoid hassles, worries and problems

ROUTE: Ubatuba is 240 km from São Paulo and 310 km from Rio de Janeiro. The majority of international flights land in one of these two cities. From either one, access to Ubatuba is by road. From São Paulo there are several daily buses to Ubatuba and the trip takes four hours; it is a five-hour bus trip from Rio to Ubatuba. Another option is renting a car at the airport and driving yourself. If you are into serious birdwatching, the best recommendation is hiring a guide who will take care of the logistics for you, which usually includes getting you to Ubatuba.

MEANS OF TRANSPORT: Ubatuba is very spread out and your destinations here can easily be 40 km apart. If you have a guide, then there is nothing to

worry about because he will get you around. Otherwise, rent a car here (or have friends in the area!) and have a map or GPS. Little local roads can be bad, unpaved, often sandy, rocky, muddy or all of the above.

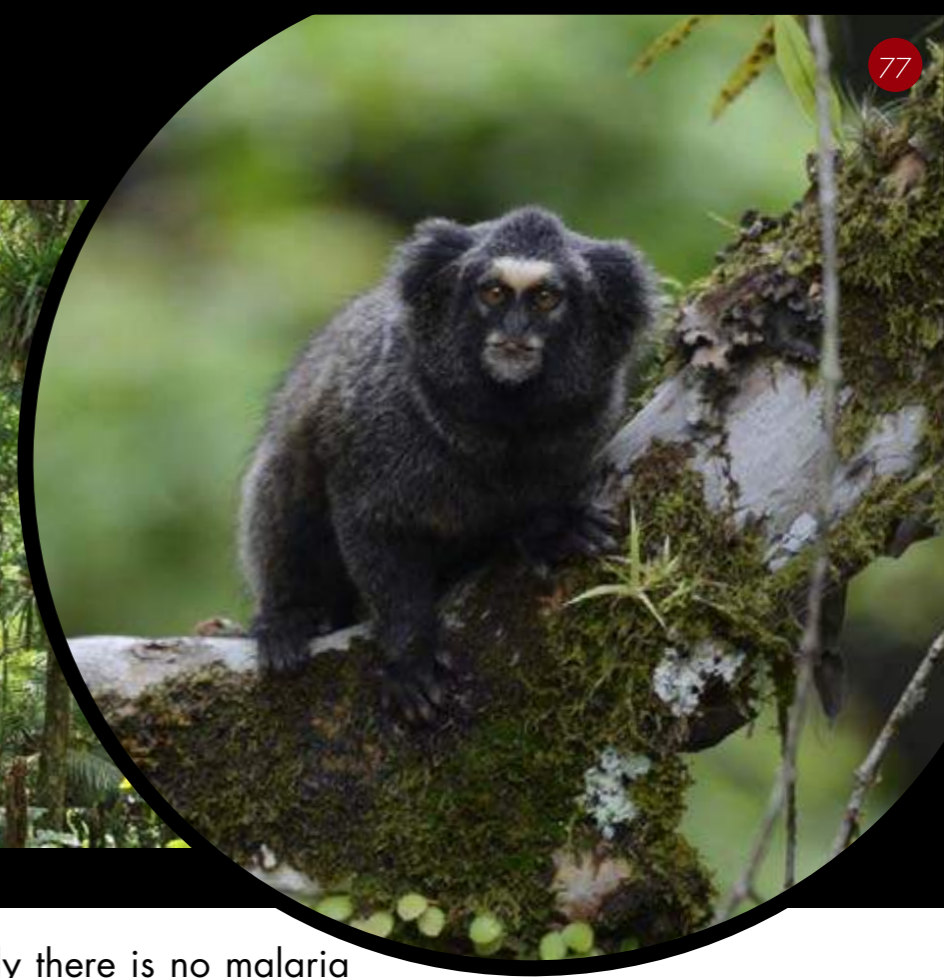
CURRENCY: The national currency is the Brazilian Real, pronounced with a stressed "a". One real, two reais. You can get local currency in most ATMs, using your international credit card; travelers cheques may get you nowhere, but credit cards are widely accepted.

ACCOMODATION: There is lots of it, everywhere. From modest *pousadas* – analogous to bed & breakfasts – to more luxurious beachfront hotels and self-catering facilities, the range is wide and will cater

to most tastes and budgets. If you want to wake up to birdsong in the forest, [Dacnis](#) (pictured above) offers two comfortable en-suite rooms and a well-equipped kitchen for you to prepare your own meals. Breakfast on the terrace is a lot more than what is on your plate: you also feast at the sight of countless hummingbirds around feeders right in front of you.

FOOD: Fish, shrimp and squid in all kinds of dishes are normal; availability and price depend on the time of year. We love finger food: breaded squid, fried manioc fingers, sun-dried meat in little balls, *pastel* (a fried, light, savory pastry filled with shrimp, meat or cheese) or *pão de queijo* (a fluffy cheese bread) go well with a very cold lager or a *caipirinha* – sugarcane spirit, lime, sugar and

Sun, sea, sand and rainforest - a winning combination



ice, the Brazilian national drink – at a day’s end. The traditional inhabitants of this part of the coast always had, as their main ingredients, what ocean and land yielded: fish, seafood, bananas, coconuts, hearts of palm, peppers, manioc. They can be found in traditional dishes like *moqueca*, a fish and seafood stew, or fish with plantain, and are also part of recipes with a modern, more refined, twist. Be careful if you add pepper, as the local kinds are known to be fiery. Another Brazilian specialty is barbecue.

LANGUAGE: Portuguese, or rather, Brazilian Portuguese. Some people will speak English, but don’t expect to find them everywhere. If you speak Spanish, you’ll get around with no problems.

WORRIES: The crime rate in Ubatuba is comparatively low, and the most common occurrences are thefts of opportunity and burglaries during the high season. It is never a good idea to leave valuables lying around in plain view in the car, for instance, and it doesn’t cost to keep an eye on your photographic equipment. Walking in town after dark should be safe.

When hiking in the forest it is best to wear hiking boots and long pants, and always look before you put your foot down, especially behind big rocks: there could be a snake there, and some of the local ones are very venomous. Do not move rocks or sit on them before inspecting the surroundings first. In places with low vegetation or high grass, ticks are a problem. Mosquitoes and other nasty biting bugs are ubiquitous. Repellent is mandatory, and carrying anti-itch ointment in your medicine kit can do no harm. It is advisable to avoid high season, between Christmas and the end of January, and the extended Carnival holiday, which happens fifty days before Easter, because it is very crowded. Traffic will be bad and there will be queues in most places, so you will waste a lot of time you could be using better. And prices are higher, too.

HEALTH: The main concern are insect-transmitted diseases, especially dengue fever in the summer months. The water is okay, but not even the locals drink it straight out of the tap (it smells of chlorine); filtered and bottled water is fine. The food, even raw, is generally safe, especially in the more popular

places. Luckily there is no malaria or Yellow Fever in Ubatuba.

CLIMATE: Late spring and summer – from the beginning of December until late March – can be hot. It’s less about the temperature (which very rarely climbs above 34°C) and more about heat combined with a consistently high humidity, which can make it muggy and unpleasant. During these months, hiking in the forest tires you out easily; it feels like a sauna in there. This is also the rainiest part of the year, and dramatic, intense summer storms are common. In winter, daytime is usually sunny and beautiful, whilst in nighttime the temperature can fall to about 12°C.

BESIDES: Ubatuba is a laid-back, cozy beach town. Many secluded beaches are truly spectacular and if you are into sun, sand and water, they deserve to be explored. Some of them also offer good surfing, and Ubatuba is often called “The capital of surf.” Visits to an indigenous village or a *caçara* community can also be easily arranged for a bit of local color and a better feel for history. ●



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*Amphibians and reptiles are awesome...
we show it!*



*An opportunity to escape from the routine
and join us on an exciting adventure to
experience tropical wildlife at its best!*

Rhythms of Africa

Piper MacKay – a Wildlife Photographer in Her Own Words

A woman's passionate love affair with Africa, its wildlife and its cultures is at the origin of an extraordinary collection of animal and human portraits - all equally intense

As a professional cultural and wildlife photographer, I'm driven by my passion to document the beauty of our fragile planet in hope to protect wildlife and cultures living on the edge of extinction. My work is heavily concentrated on the African Continent and I've spent much time in Eastern Africa over the past six years documenting both the people and the wildlife.

As many photographers before me, I came to this craft by chance. I had been plugging along in a fashion career in design and textiles for the past 20 years when I took that once-in-a-lifetime trip to Africa, a land I fell in love with the minute my feet touched down on its rich red soil and a trip that changed the trajectory of my career and life. I returned to Africa two more times in the first six months after that first trip. Although this new path has been filled with extreme challenges, when you find a passion that fills your soul and gives you a strong purpose to what you believe is right, the rewards of doing what you love outweigh the sacrifices. I believe the more compelling work comes when you invest time, living the stories you are trying to tell even when that means living in harsh conditions. It is important to interact and gain the trust of those whose stories you are telling, especially when sensitive



and complicated. The world has enough images of poverty, pain and disaster, much more needful is imagery that reveals the beauty of nature and those living in harmony with the Earth. Powerful images help shape the view of the world and play an important role in disseminating how cultures and wildlife are coping with the rapid changes happening in the developing world. My passion for the natural world has grown into a lifelong commitment to inspire others to explore, respect and preserve the beauty of our fragile planet. I believe great change is made by one person who is emotionally touched by a personal experience and persons act with passion when they are emotionally and physically involved. I am now leading tours in Eastern Africa to create a heightened understanding of the issues faced by wildlife and cultures in this region. My work has been displayed at the Smithsonian Natural History Museum, The Museum of History and Industry and The Art Wolfe Gallery, as well as local galleries. It has been featured in nature, photography, and travel publications through representation of several photo agencies, including *Nature Photographer*, *Rangefinder*, *Nature's Best*, *Birders* and the World Wildlife Fund.

www.pipermackayphotography.com



Mursi children playing in the river,
Omo Valley, Southern Ethiopia.
Canon EOS 5D Mark II, 1/1250, f 5,6, ISO 400, 19mm



1



2

Portrait of a Mursi girl, Omo Valley, Southern Ethiopia.
Canon EOS 7D, 1/640, f 2,8, ISO 100, 135mm (1)

Portrait of White Rhino, Lake Nakuru, Kenya.
Canon EOS-1D Mark II, 1/800, f 7, ISO 1000, 500mm (2)



Portrait of a beautiful Mursi girl,
Omo Valley,
Ethiopia.
Canon EOS
5D Mark II,
1/200, f 2,8,
ISO 200,
200mm
(1)

Portrait of a male lion
walking right
towards me in
the Masai
Mara, Kenya.
Canon EOS-
1D Mark III,
1/2500, f 8,
ISO 2000.
700mm
(2)





**Portrait of
Mursi
Children,**

Omo Valley,
Southern
Ethiopia.

Canon EOS
5D Mark II,
1/800, f 4,
ISO 320,
200mm



2



1

Portrait of an elder Mursi woman, Omo Valley, Southern Ethiopia.
Canon EOS 5D Mark II, 1/1250, f 2,8, ISO 400, 185mm (1)

Portrait of a Mursi warrior, Omo Valley, Southern Ethiopia.
Canon EOS 5D Mark II, 1/1000, f 4, ISO 200, 200mm (2)



1

Peek-a-boo! A baby baboon that was playing with me for about a half hour in Lake Nakuru, Kenya.
Canon EOS-1D Mark II, 1/400, f 5,6, ISO 200, 500mm
(1)

Waterbuck on the Masai Mara plains, Kenya.
Canon EOS 5D Mark II, 1/640, f 10, ISO 500, 700mm
(2)



2



The Kara Tribe
sitting along the Omo River having morning coffee, Ethiopia.
Canon EOS 5D Mark II, 1/400, f 2,8, ISO 200, 115mm



Herd of Elephants
crossing the plains in Amboseli, Kenya.
Canon EOS-1D Mark III, 1/1250, f 10, ISO 500, 110mm



Wildebeest
migrating through the plains of the Masai Mara at sunset, Kenya.
Canon EOS-1D Mark II, 1/1600, f 11, ISO 1250, 70mm



Beautiful colorful beaded skins
worn by the Hamar women, Omo Valley,
Southern Ethiopia. Canon EOS 5D Mark
II, 1/8000, f 2,8, ISO 1600, 120mm

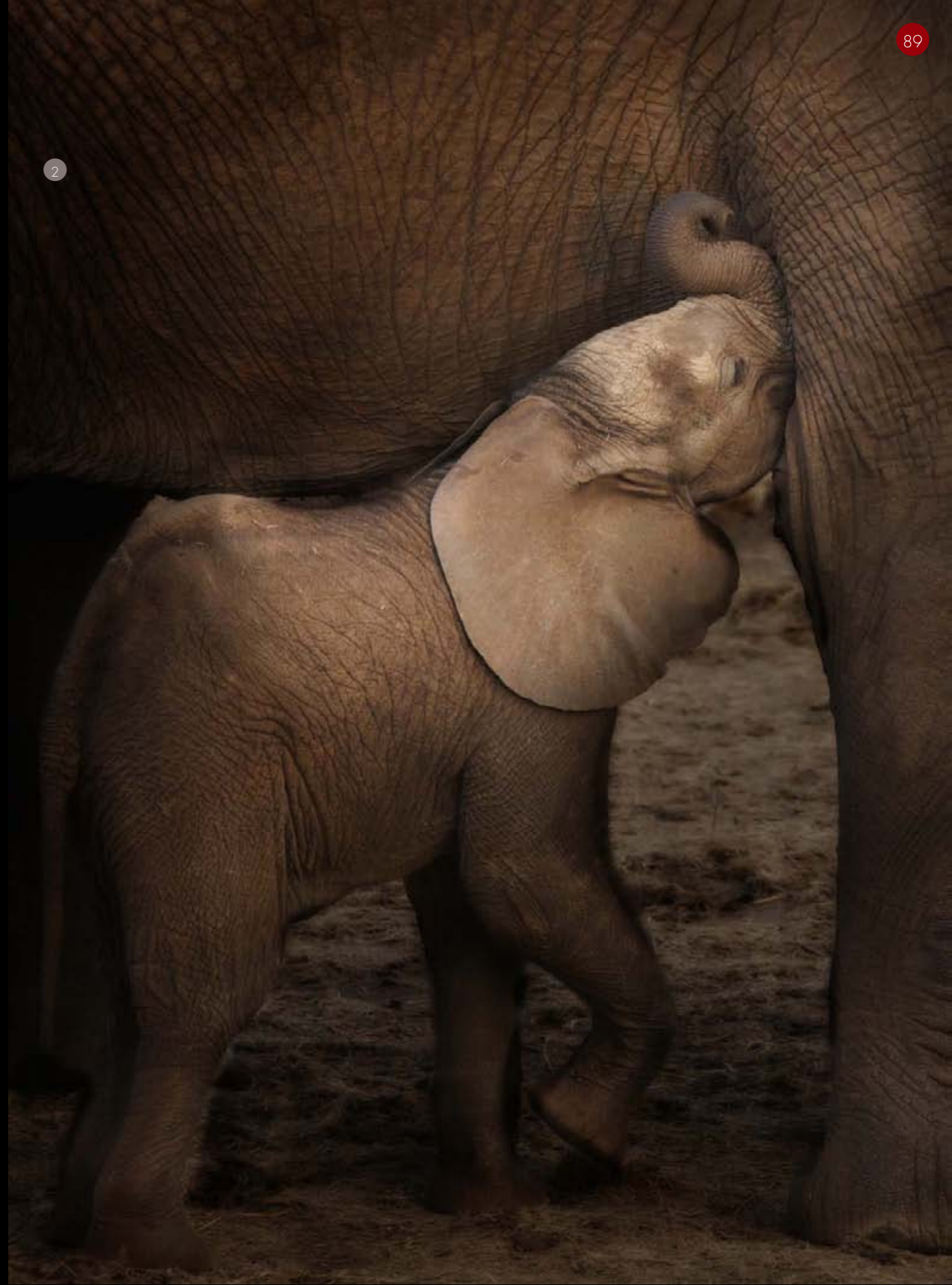
Portrait of two beautiful Mursi
girls along the river, Omo Valley, Ethiopia.
Canon EOS 5D Mark II, 1/640, f 4, ISO 200, 120mm



Portrait of a Kara girl
drinking from the Omo River, Omo Valley, Ethiopia.
Canon EOS 5D Mark II, 1/500, f 4,9, ISO 200, 170mm



1



2

Portrait of a Kara woman with child, Omo Valley, Southern Ethiopia.
Canon EOS 5D Mark II, 1/320, f 13, ISO 200, 35mm (1)

Young elephant trying to nurse, salt lick, Eastern Kenya.
Canon EOS 5D Mark II, 1/250, f 6,3, ISO 1000, 500mm (2)

Miracle in the Mara, six cheetah cubs in the Masai Mara, Kenya. A rare opportunity as most cheetahs have between 3-4 cubs and mortality rate is as high as 95%. Canon EOS-1D Mark III, 1/2500, f 13, ISO 2000, 700mm



This cheetah had already lost all of her cubs but this one and was going to great lengths to protect it. This image was part of the Nature's Best exhibit at the Smithsonian Natural History Museum. Masai Mara, Kenya. Canon EOS-1D Mark II, 1/1600, f 7,1, ISO 100, 500mm



Portrait of an elephant

swimming across the Zambezi river in Botswana.
Canon EOS 20D, 1/250, f 8, ISO 800, 255mm



Mischief in the the plains,
two cheetah cubs at play
in the Masai Mara, Kenya.
Canon EOS-1D Mark III, 1/1250,
f 8, ISO 2000, 500mm



Gerenuk can stretch up to 6 feet
to reach foliage. Samburu, Kenya.
Canon EOS-1D Mark II,
1/1250, f 5,6,
ISO 160, 500mm



1

The most beautiful
full maned male lions are
found in the Masai Mara,
Kenya. Canon EOS 20D,
1/1000, f 4, ISO 200,
500mm
(1)

Portrait of a Mursi
woman who wears orna-
mental clay lip plates, elabo-
rate headdresses and beauti-
ful body paint, Omo Valley,
Ethiopia. Canon EOS 5D
Mark II, 1/1250, f 2,8, ISO
200, 200mm
(2)



93

2



This cheetah cub is trying to get a free ride, Masai Mara, Kenya.
Canon EOS-1D Mark III, 1/2000, f 13, ISO 2000, 700mm



1

Being scolded by a male baboon, Lake Nakuru, Kenya.
Canon EOS-1D Mark II, 1/160, f 4, ISO 500, 500mm (1)

Portrait of a Silverback Mountain Gorilla, Virunga hills, Rwanda.
Canon EOS-1D Mark II, 1/100, f 2,8, ISO 1250, 105mm (2)



2



1



2

Portrait of a Mursi woman hiding a fresh cut in her lip with a leaf. At a young age a girls lower lip is cut by her mother and is held open by a wooden plug until the wound heals and a lip plate is inserted. Omo Valley, Southern Ethiopia. Canon EOS 5D Mark II, 1/400, f 2,8, ISO 200, 165mm (1)

Portrait of a beautiful Mursi girl, Omo Valley, Ethiopia. Canon EOS 5D Mark II, 1/160, f 5,6, ISO 320, 200mm (2)



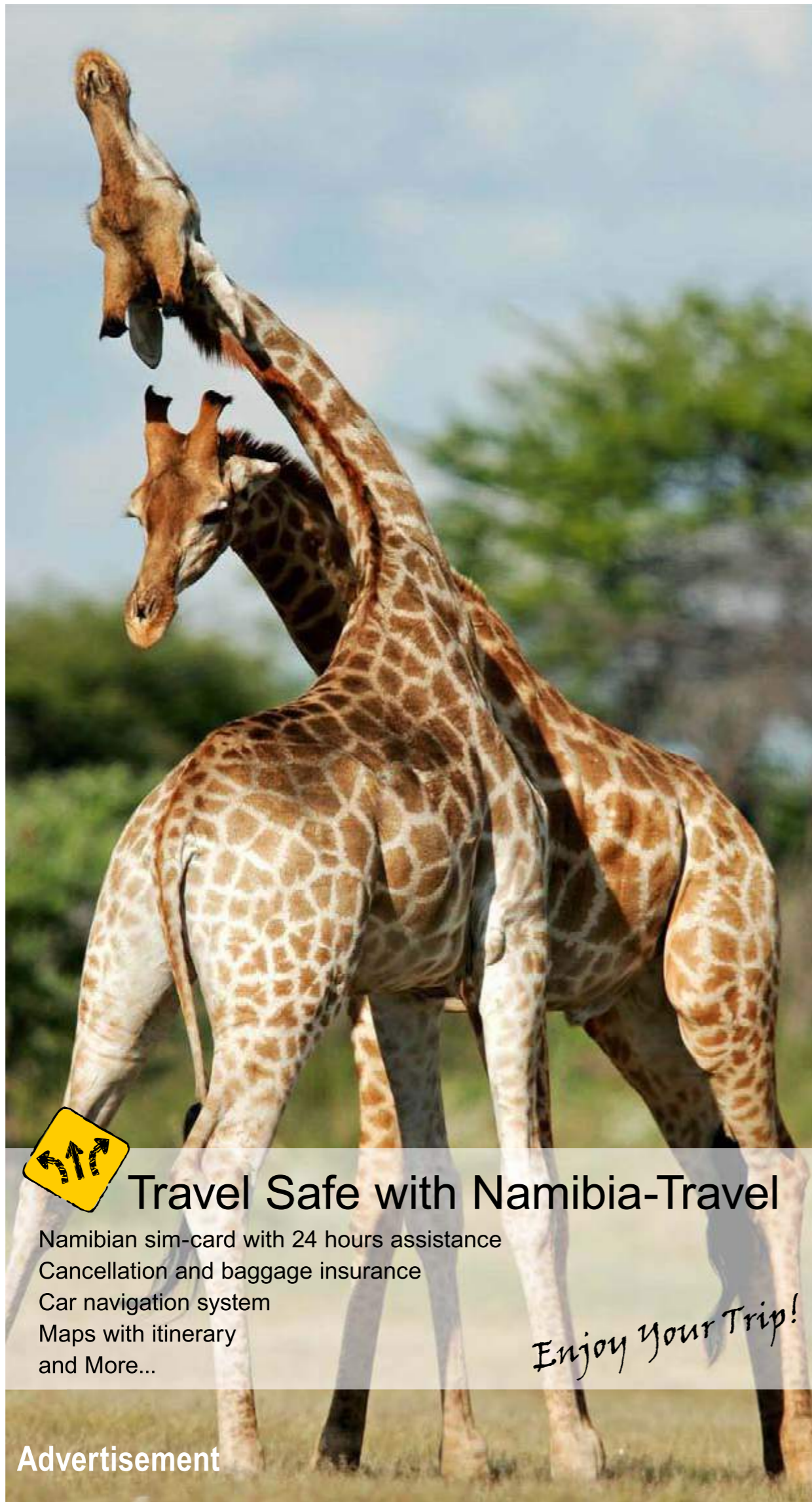
Portrait of the Kara warriors sitting along the banks of the Omo River, Ethiopia. The Kara excel in face and body painting that is practiced daily in preparation of their dances and ceremonies. They pulverize locally found white chalk, yellow mineral rock, red iron ore and black charcoal to decorate their bodies often mimicking the spotted plumage of a guinea fowl. The men create highly decorated clay hair buns, which can take up to three days to complete. Canon EOS 5D Mark II, 1/800, f 5, ISO 200, 200mm (1)

Portrait of Plains Zebra, Masai Mara, Kenya. Canon EOS-1D Mark III, 1/200, f 10, ISO 320, 500mm (2)



Hamer tribe,
Omo Valley, Southern Ethiopia.
Canon EOS 7D, 1/400, f 20,
ISO 1600, 16mm

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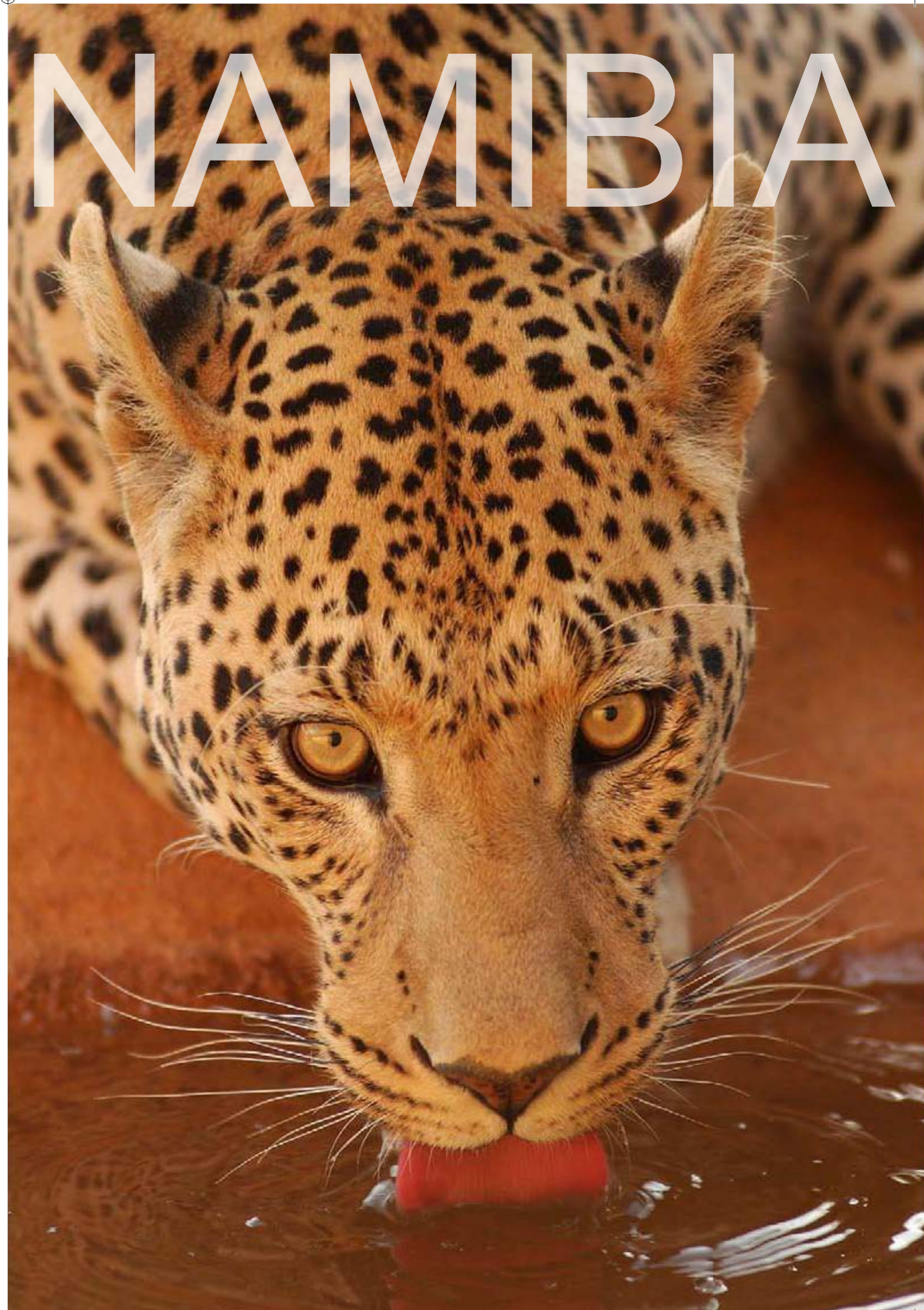
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SOFT CORALS HEDGEROWS OF THE SEA

Soft corals belonging to the genus *Dendronephthya* are some of the reef's most colorful benthic organisms. This vibrant underwater landscape was shot nearby Kri Island in Raja Ampat, West Papua.

Taking a close look at the fascinating underwater micro-habitat created by these colorful and all-important denizens of the tropical coral reef

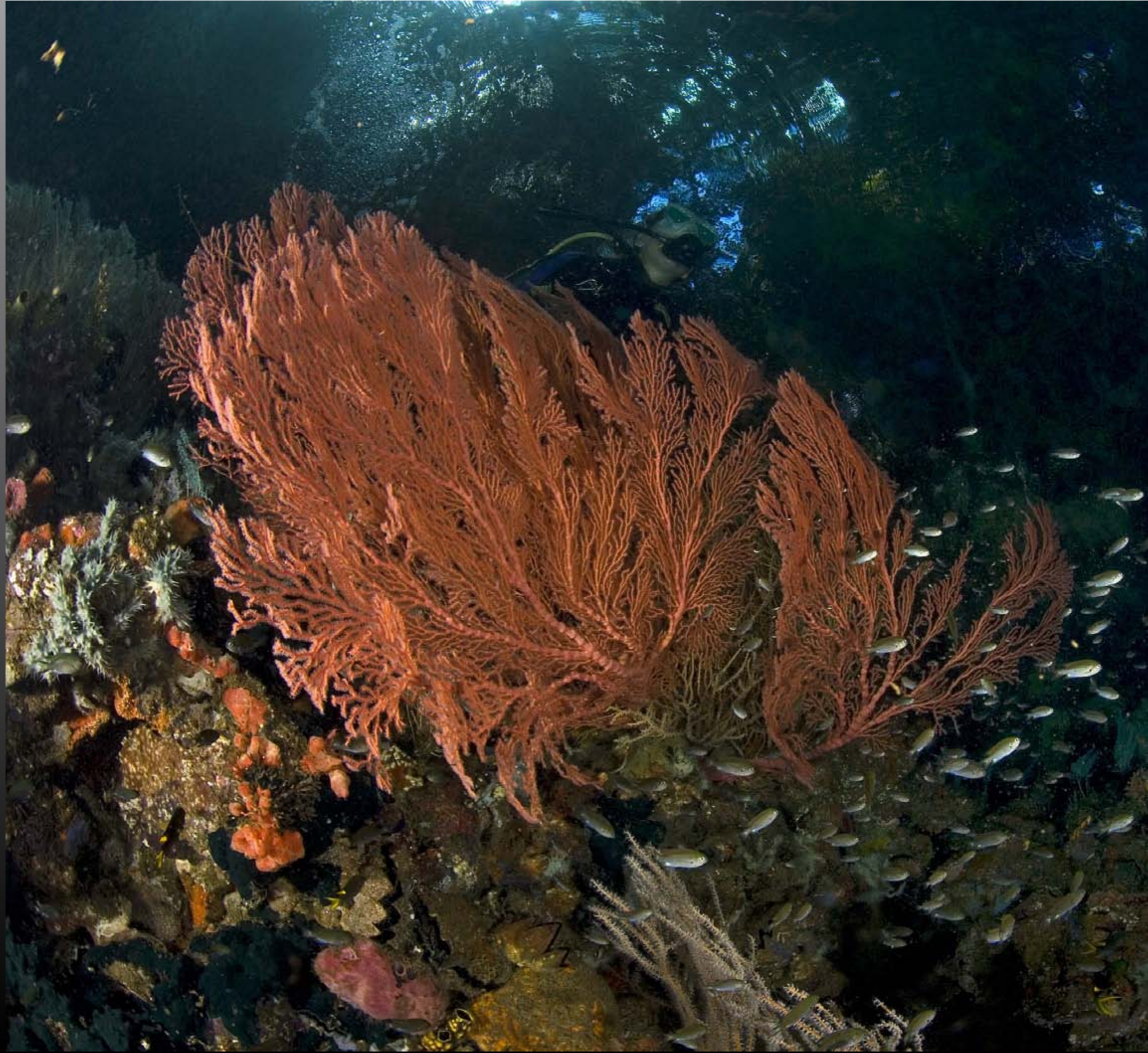
TEXT BY ANDREA FERRARI

PHOTOS BY ANDREA & ANTONELLA FERRARI

Pink, red, orange, purple, yellow – soft corals come in all candy colors. And shapes too: from big fleshy cauliflowers (*Dendronephthya*) to three-meter wide sea fans (*Muricella*, *Echinogorgia* and many other genera), from slender seawhips (*Juncella*) to corkscrewing wires (*Cirripathes*). Soft corals proper, bushy thickets of black corals, horny gorgonians or sea fans and deep-dwelling sea whips share however one common trait: they all are *ahermatypic* corals (meaning they are not reef builders like hard corals) and make wonderful photo subjects for wide-angle and fisheye aficionados. However, there's more to soft corals than it meets the eye...especially if one takes the trouble to get very, very close, and start scrutinizing their surface.

If we - correctly - consider a coral reef as a submerged rainforest, then soft, black and whip corals and gorgonians or sea fans can be thought of as standing isolated bushes or thorny thickets, often giving rise to habitats akin to those found in countryside hedges. Shrubs and hedgerows offer refuge to a multitude of creatures on land - from nesting birds to fledglings, from adult bugs to their larvae, from butterflies and caterpillars to lizards and small snakes: their role in a

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Another underwater shot from Raja Ampat, West Papua, as Antonella hovers above a very large sea fan at The Passage. Also known as gorgonians, sea fans feature a hard, horny, very flexible structure of many delicate hues. They always grow facing the main current, so to offer a broader feeding surface to the polyps which constitute the colony.



Soft corals belong to many different species and come in many different shapes, colors and textures. The many organisms living among them are equally diverse: clockwise, from top left, a Pygmy Seahorse *Hippocampus denise*, a well-camouflaged Soft Coral Partner Shrimp *Dasycaris ceratops*, a tiny Papuan Cuttlefish *Sepia papuensis* and a large Lionfish *Pterois volitans*. Notice the measure of camouflage shown by all.



The coral reefs of the Central Indo-Pacific - the epicentre of marine biodiversity - can be dizzyingly alive and colorful. These two wide-angle images - both prominently featuring soft corals and gorgonians among a multitude of sponges, ascidians and hydroids - illustrate the extraordinary richness of the underwater landscape of Raja Ampat, in West Papua.

In the nutrient-rich waters of the Raja Ampat area in West Papua, sea fans - elsewhere usually restricted to deep water - can grow at very shallow depth. Antonella is seen here at Mike's Point, one of the area's most scenic underwater seascapes.

A serene, shallow underwater garden of exquisite natural beauty



healthy natural habitat is invaluable. Think of black coral colonies, of large gorgonians, of thickets of fleshy soft corals in the same terms: all-important microhabitats in which an enormous number of small and often defenceless tiny creatures find a home and food, hidden and well-protected from the roving predators which inhabit the reef. Divers who will take the trouble to closely and carefully examine these shrubs of the deep will be regaled with a plethora of amazing sights and fascinating encounters.

A COMMUNITY OF CREATURES

Among the countless inhabitants of soft coral colonies, fish are the most easily observed. Most divers are in fact quite familiar with Pixy and Long-nosed Hawkfish, Pygmy seahorses and small Cardinals, the latter often hiding among black coral colonies in thick schools. Less easy to observe are several very small, semi-transparent gobies which can be seen on wire corals (look out! They'll always jump in a flash to the other side of the colony when you approach them) and soft corals proper, often taking the same color of the fleshy host they live on. Wire corals are also the habitat of choice of several small crabs belonging to the genus *Xenocarcinus*, many colorful Squat lobsters (*Galathea*) and shrimp belonging to the genus *Hamodactylus* or *Dasycaris*, often

continued on page 107 >



Cauliflower soft corals such as this *Dendronephthya* colony can be outrageously colorful. Further left, two more common members of the soft coral biotope - a semitransparent Whip coral Goby *Bryaninops* sp. (top) and a partially transparent commensal shrimp *Periclemenes brevicarpalis* (bottom). Total or partial transparency is often adopted by soft corals symbionts as a defensive strategy.



Thickly branched and often almost impenetrable, soft corals and sea fans offer refuge from the threat of roving predators to a multitude of small species. Far left, a Whitetip Reef Shark *Triaenodon obesus* passes by a deep-water soft coral colony; left top, the amazingly camouflaged Sawblade shrimp *Tozeuma armatum*; left below, juveniles and fry of countless species often hide among soft corals.



Another atmospheric shot of Antonella hovering above two large gorgonians clearly illustrates the flat, almost bidimensional structure shown by these colonial organisms.

amazingly camouflaged to blend with their perch (some will even sport growths which cleverly mimic the expanded polyps of the coral colony). The most amazing of these however is the spectacular Sawblade shrimp *Tozeuma armatum*, a colorful long and thin shrimp which looks like a miniature samurai sword and which exclusively inhabits black coral colonies. Always remember to delicately and carefully check large thick colonies of cauliflower soft corals *Dendronephthya* – it is not uncommon to discover the beautiful Soft coral or Candy crab *Hoplophrys oatesii* contentedly perching among their inflated branches or on their fleshy terminal “blossoms”. Another wonderful master of camouflage is the bizarre Gorgonian horned shrimp *Miopandalus hardingii* - so good at its job, in fact, that most divers never see one in their life. Even more difficult to spot and great fun for the specialized photographer are the so-called allied and spindle cowries, several species of which are more or less commonly found on gorgonians and soft corals. These are incredibly well camouflaged and very small seashells which live symbiotically on soft coral colonies, feeding and mating on their hosts: they will often develop warts and papillae on their mantles, mimicking with amazing accuracy expanded coral polyps, literally disappearing on the colorful background they are found on.

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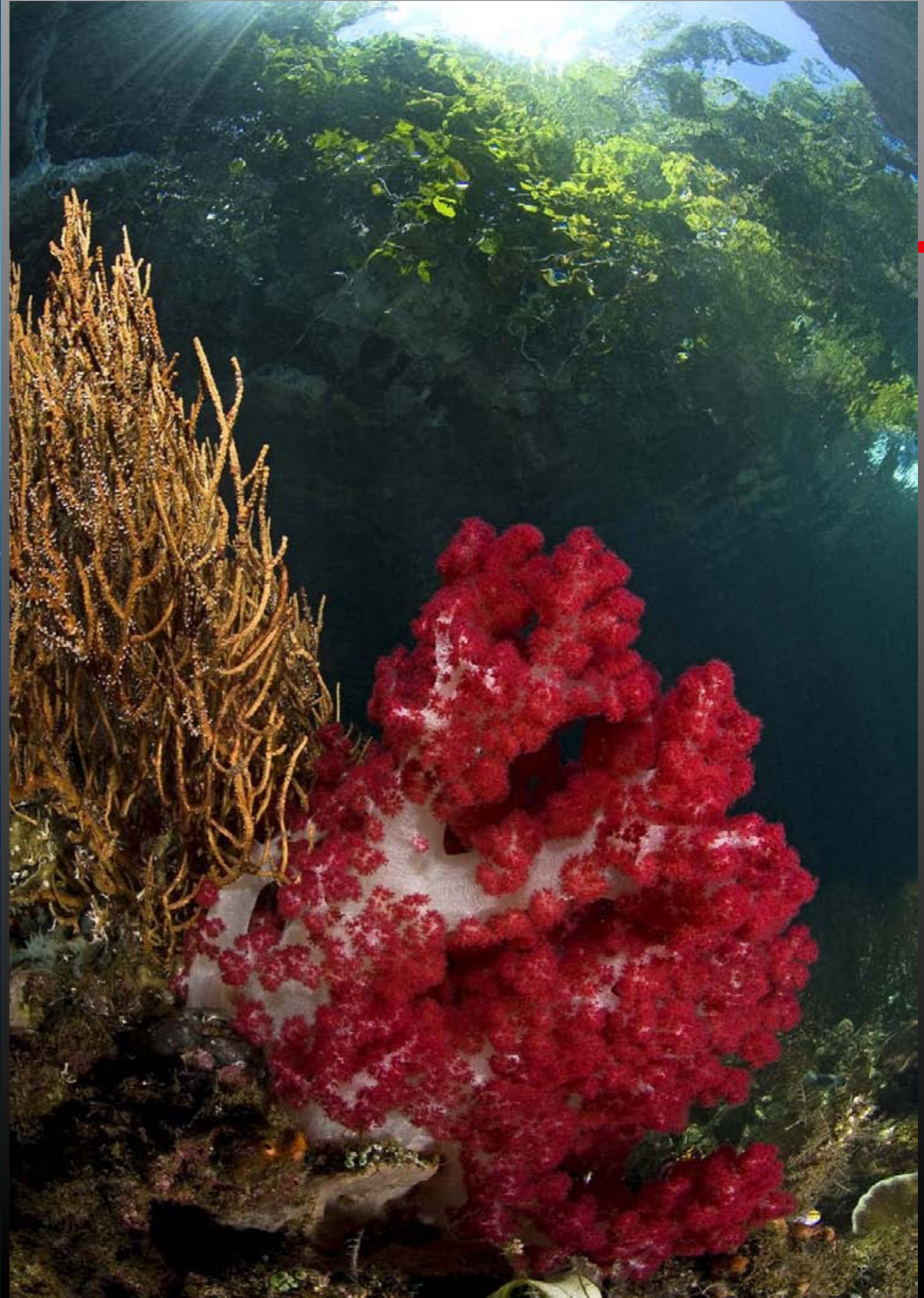


Black Coral colonies belonging to the genus *Anthipates* truly look like underwater bushes - here a Coral Grouper *Cephalopholis miniata* hides in one on a reef in the Maldives. Far left, two more species commonly found in the soft corals biotope - a tiny Xeno crab *Xenocarcinus conicus* (top) and a Whip coral partner shrimp *Dasycaris zanzibarica* (bottom). Both species feature stunningly effective camouflage.

A deadly game of hide-and-see among the soft corals ramifications



More examples from the soft coral biotope - clockwise, from top left, Long-nosed Hawkfish *Oxycirrhites typus*, Spider Crab *Chirostylus dolichopus*, Porcelain crab *Lissocarcinus laevis* and Pygmy Seahorse *Hippocampus bargibanti*. All show extensive use of mimicry and /or disruptive camouflage to perfectly blend in the soft coral colony environment.



Far left, Antonella hovers above a gigantic sea fan growing at a depth of 60 meters on the reef wall of Layang Layang atoll, in the South China Sea - notice orientation of the colony to face the strong, nutrient-rich currents prevalent on reef walls. Left, a cauliflower soft coral is filled with water and fully expanded in the shallow, warm waters of The Channel in Raja Ampat, West Papua.

Delicate, lace-like textures which belie a strong but flexible structure



Escorted by a pair of Tallfin Batfish *Platax teira*, Antonella explores the shallow, warm waters of Five Rocks in Raja Ampat, West Papua. Strong surface currents carrying with them a great quantity of nutrients allow sea fans here to commonly grow at very shallow depth.

Lit from behind - taking advantage of the semi-transparent quality of their colonial host - they make wonderful subjects for the discriminating macro photographer.

THE SECRET IS IN THE LIGHT

Lighting in fact is extremely important when portraying these minute but colorful critters, as their camouflage is so unbelievably good it's almost impossible to spot them in a flatly-lit photo. For those who like abstract shots, several common and very small brittlestars also offer unique chances to compose arty photographs, taking advantage of their colorful snake-like arms sinuously draping themselves around the branches of the soft corals. As with all macrolife subjects, it is all-important to stress once again not to damage the microhabitat on which these tiny and beautiful creatures are commonly found.

Sadly, many over-enthusiastic dive guides will roughly handle and occasionally even damage the corals in their eagerness to show these little inhabitants of the sea to their clients. Restrained and delicate manipulation, preferably using a blunt, thin tool like a pointer, is instead occasionally acceptable, as long as the subjects are not forcibly removed from their host - remember, these are habitat-specific species which are incapable of surviving if separated from their host.



Red Juncella Whip Corals - usually restricted to deep waters and here photographed near Walea Island in Central Sulawesi, Indonesia - offer another variation on soft corals colonies structure and development. Far left, two more inhabitants of the soft coral biotope - a Xeno crab *Xenocarcinus tuberculatus* (top) and a tiny Allied Cowry (bottom). In the lower photo the calcareous spicules which stiffen the soft coral colony are also quite evident.



Far left and hovering in the distance, Antonella is dwarfed by a gigantic *Dendronephthya* colony spanning over two meters at Barracuda Point, Pulau Sipadan, Sulawesi Sea. Left, another soft coral biotope in the same location, one of the world's underwater biodiversity hotspots.

Blindingly colorful plant-like colonies made of millions of polyps



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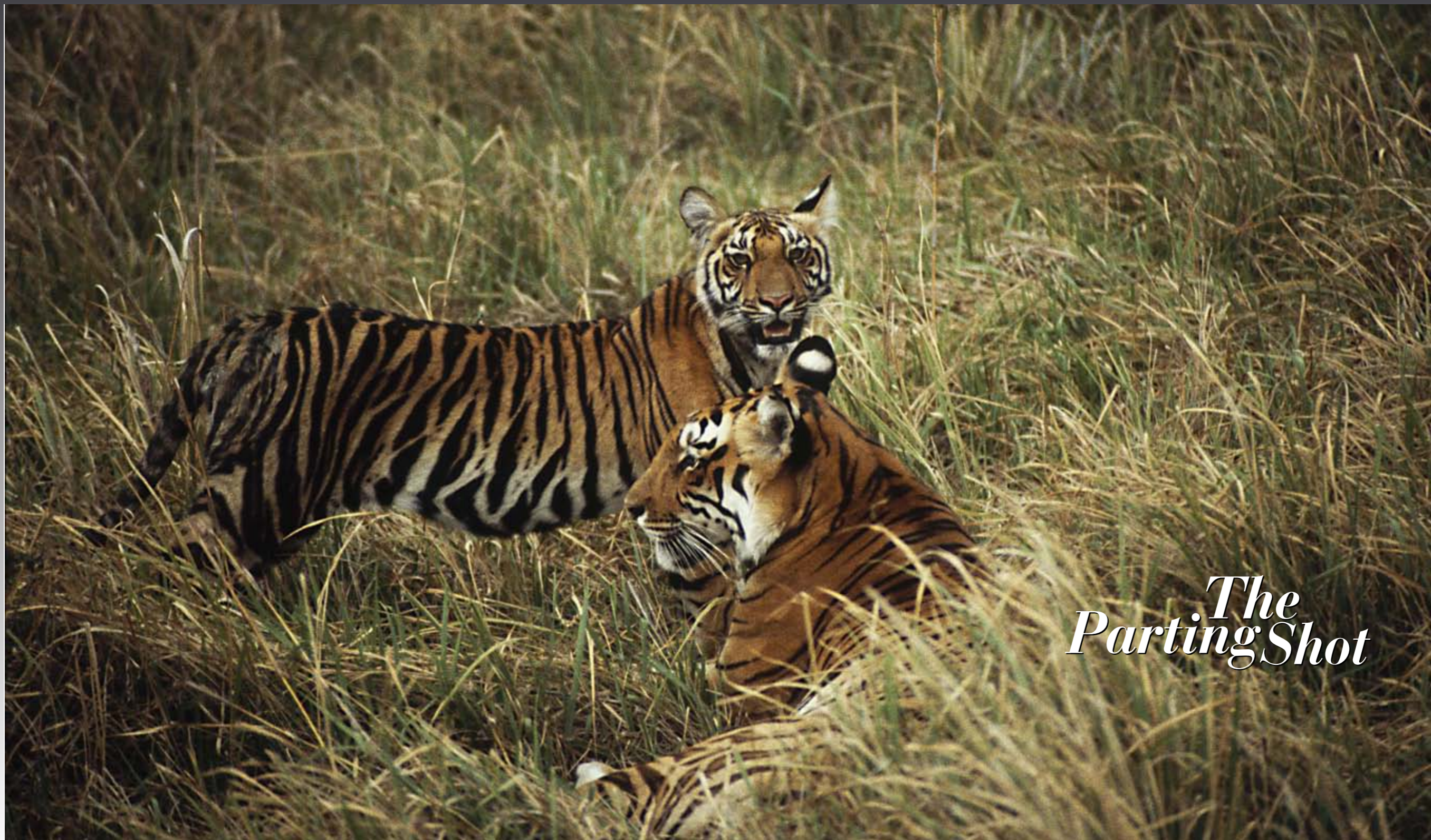
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The Parting Shot

Its sides rumbling with telluric intensity, our elephant shifts nervously its weight from leg to leg, snorting angrily, as we precariously perch to our makeshift *howdah*, exposed legs dangling over the sides. "*Hutt, hutt*" hushes urgently the *mahout*, kicking hard his naked heels against the elephant's temples, as a liquid pool of amber, black and white a few feet away suddenly coalesces in a huge adult tigress with her yearling cub at the side, lying matronly – but still somewhat intimidating

– in the tall dry grass. She looks at us in ice-cold disdain, but we are very well aware that the playful, inquisitive romping of her offspring might very well result in an unprovoked attack. As our mount perseveres in its battle dance, snorting and half-trumpeting in tiger hate, I try to frame the stunningly beautiful scene in my old 400 ISO Agfacolor-loaded Pentax, fumbling with f-stops, half-dazed with enthusiasm. It's a hot November late afternoon in Kanha National Park, Madhya

Pradesh, India. The year is 1990. Tigers everywhere are threatened with extinction - the WWF, conservationists and celebrities worldwide are rallying in a race against time, "*Save the Tiger*" is a popular campaign catchline which even becomes the title of a Jack Lemmon movie. We all think we can make a difference – surely this magnificent creature cannot disappear forever and become the stuff of legends. Many years have passed and I wonder today - what has become of our tigers? ●

IN ANIMA MUNDI'S NEXT ISSUE
No.6, Second Quarter, April 2012

WINGED WONDERS
OF MINDO

Hand-held
hummingbird
photography
- and much more -
in Ecuador's remote
and spectacular
cloud forests

A DEADLY CHARM

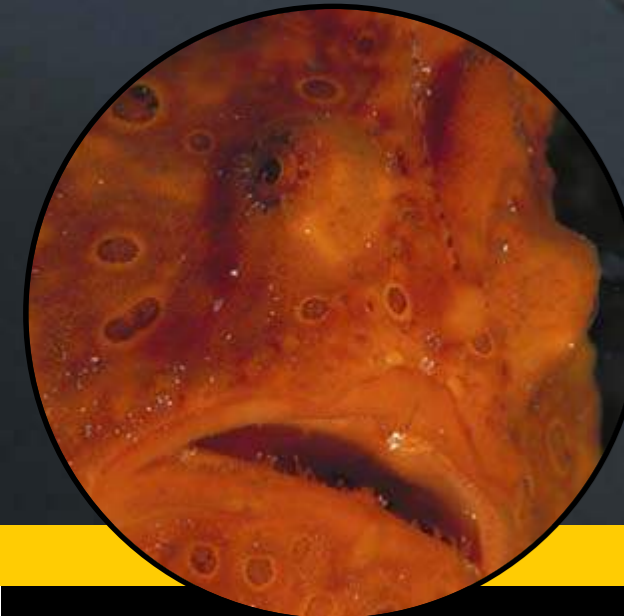
A photographic
celebration of the
amazingly beautiful
- and often very
dangerous - snakes
of Costa Rica



GHOST ELEPHANTS OF THE ETOSHA PAN
Christopher Rimmer's personal portfolio in black and white
- a homage to the ghostly giants of the Namibian desert



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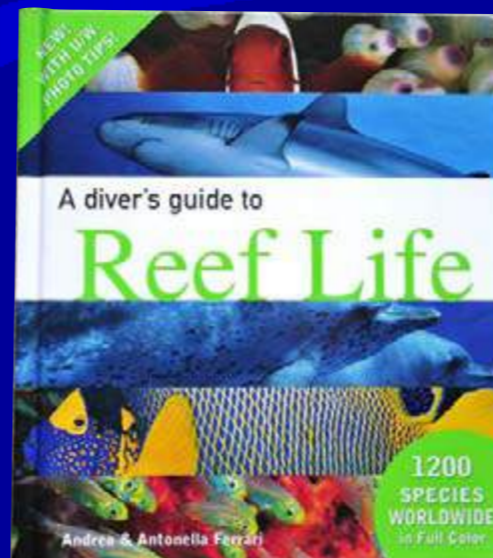


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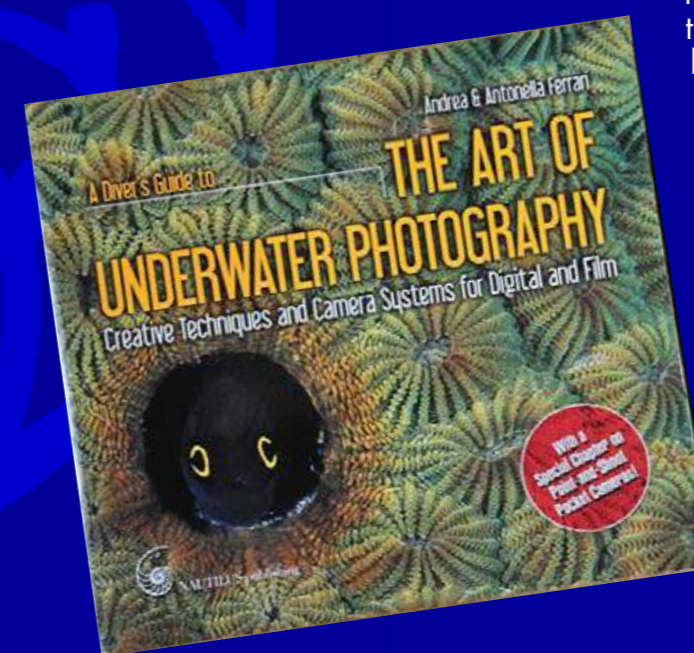
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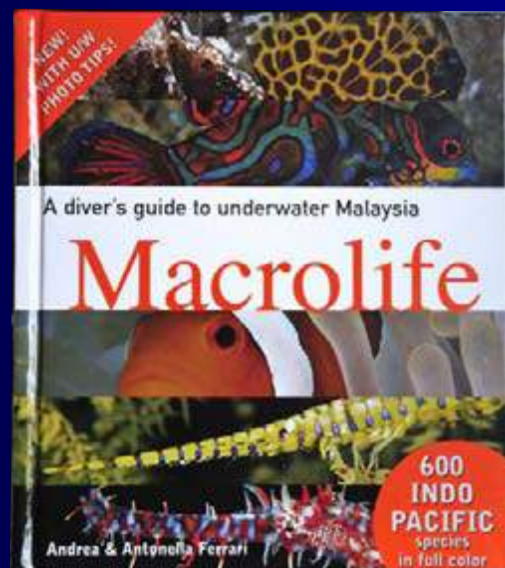
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