

Galapagos

A megapixel evolution

by Michael Aw

On a windy September morning I arrive on Baltra Island, some 1000 km west of the South American coast. This is my fourth trip to the enchanted islands of Galapagos. It has cost megabucks to come, but these far-flung equatorial islands of Ecuador are celebrated as the world's greatest natural history asset, unique diversity of marine and land fauna providing a living textbook for ecologists, scuba divers and naturalists alike. What makes the Galapagos outstanding from other wild places I have known is that not only can I feel and see wilderness right on the street of populated islands, but that I become part of wilderness. Isolated from the mainland of South America, Galapagos creatures lack an instinctive sense of fear for humans and will allow interaction with benign curiosity both above and underwater.

For this beyond-the-ordinary tour, I have made up a mega shooting list comprising of whale sharks, schooling hammerheads, Galapagos sharks, sea horse, Mola Mola, marine iguanas above and below water, sea lions above and below water, penguins above and below water, the Wave albatross, flightless cormorants, dolphins and of course the usual suspects of giant tortoises, sea turtles, Red Lip batfish, frigate birds and boobies. The cunning plan for this special tour is to track the route of Al Giddings when he worked on the IMAX 3D in 1998, packing in the best of the Galapagos both above and below all into a 12-day sojourn.

I once wrote that the Galapagos is a place where one can feel and see evolution in motion. Well, as part of natural progression, I am evolving during this trip; evolving from shooting 100% film to 100% digital – sort of a megapixel photographic journey. My equipment of choice is the Nikon D1X and D100. An arsenal of lenses comprise the 12-24mm D



Marine iguana (Amblyrhynchus cristatus). NIKON D1X. 1/90 @ f 11.0. Zoom Length : 24 mm. Exposure Bias :-667. Zoom Length : 24 mm

Ambient light. Location: Punta Espinosa, Fernadina

This is a photographer's vision of Galapagos – an iguana underwater. The shot I always wanted. Whilst they are easily seen topside, to see them underwater, careful planning is essential. The right tide, hot sunny afternoon and because of their diet of algae, getting pictures of them underwater means diving in surgy green shallow water. I was in ecstasy after this shoot.

lens, 18mm f2.8, 16mm f2,8 fisheye, 24mm f2.8, 28-70mm f2.8 and the 80-400 f4 ED lens. Digital films are just 2 x 1 gig compact flash card and 2 x 1gig IBM Microdrive. Though I have a notebook computer, digital media is downloaded after each session into a

portable 40 gig XDrive. Heeding my own advice to anyone visiting the Galapagos to bring twice the amount of film stock, I brought along 2 portable drives and there's always more hard disk space in my trusty note book with a combo DVD/CD RW drive. I came



*Sea lion in Bubble bath. NIKON D100, 1/160 @ f 8.0, Zoom Length : 24 mm, Exposure Bias :- 667. Ambient light
Champion, off Floreana*

In between dives, we took time to play with a small sea lion colony at Champion Is. I caught this one enjoying a 'bubble bath' right in front of Paul's camera. I would have loved to shoot from his perspective!

'well prepared', just in case all else failed, I brought along a spool of 50 x 700mb CD's. My stomach churned as I embarked on this digital journey, hard disk and digital media do fail, and humans are known to err, what if I accidentally erase or format a disk! Fragile as it is, one can not erase a roll of film just by pushing a 'Delete' button.

Without doubt, digital has its advantages. With a 1 gig media card, I get 131 frames in the D1x and 103 frames in the D100. With two camera systems set up for each shoot, there were only five instances that I ran out of frames before I ran out of time. With the fickle weather conditions in the Galapagos, the ability to change ISO during a dive to adapt to



*Gotcha! Scalloped hammerhead shark (Sphyrna lewini). NIKON D100, 1/60 @ f 5.0. Zoom Length : 20 mm. Single Ikelite S200 strobe. Location: Darwin Arch
This shot is by Paul Tsai, my buddy for many years. Generally Hammerheads dislike bubbles. To get them close for a decent portrait we often resorted to holding our breath. This one came real close, I pressed the shutter and exhaled, causing him to turn right towards Paul. He got me and the runaway shark.*

changing light is a luxury afforded only by digital shooters. I shoot entirely manual underwater; the ability to have an instant 'test' on exposure, enhances productivity and success ratio. One clear difference became noticeable with digital; I have less time to rest between dives - instead of sleep and a book I will be culling and downloading images. For

me, it is cardinal to have a fresh reformatted media in the camera for each dive. Realistically every dive in the Galapagos is good, but there are magical ones when it all seems to come together and then 130 frames is hardly enough! Working topside is not a problem with a spare 1 gig card, just pop the fresh one in while downloading the other in the portable



Tourists and the marine iguanas on Fernadina Island

Xdrive. I shoot in NEF (raw) mode and images are processed with the Bibble software www.bibblelab.com.

In 12 days, we dived and visited 12 islands, which is including 3 days diving with the Hammerheads, dolphins and whale sharks at Darwin and Wolf. In a nutshell, we saw everything that we hoped to see. Iguanas overload – by the hundreds, piling on top of one another resembling a mountain of discarded worn out tires and at Espanola and Floreana Islands we got them in their mating colouration of red and green. But to catch them underwater, I had to

wait to the second last day to shoot them in the surgey green water off North Fernadina. We were overwhelmed to find about 10 young adult waved albatross at Espanola socialising, each looking out to find their mate for life. We caught them in the air, on the ground and young chick as well. I've got a bit blasé after awhile with the number of hammerheads and whale sharks but was delighted to find half a dozen Sunfish (Mola Mola) at Punta Vicente Roca. Of course, the sea lions were determined not to share our attention and proceeded promptly to chase them

Galapagos Barnacle Blenny, Acanthemblemaria castroi. NIKON D1X. 1/60 @ F40. Zoom Length :60 mm. Single S200 Ikelite strobe. Location: Leon Dormido, San Cristobal. These endemic Galapagos blenny dart out from their refuge of barnacle shells into the current to nab bits of food. I have a definite affection for blennies but shooting them in a surge is akin to shooting moving targets from a rollercoaster. The Seacam S45 viewfinder, with enlarged 1:1 magnification is an invaluable tool getting these images.

away. Except for 3 days at Darwin and Wolf and one day at Roca Rotunda where we dive all day, we only do 2 dives in the morning and spend 3-4 hours on each afternoon for each land visit. We have Salon Intriago and Collette Moire, as our dive and naturalist guides providing hand on interpretation of the ecology

and showing us the highlights of each location. They commented that in their 10 years' experience, our itinerary is the best and most meaningful ever put together for the ultimate experience in the Galapagos.

Both the D100 and D1X did exactly what they were supposed to do. Because of the bigger buffer and





Land Iguana —Conolophus subcristatus. NIKON D100. 1/1000 @ f5.6. Zoom Length : 16 mm Exposure Bias : -0.667. Lens: fisheye 16 mm. Location: Plaza Island

Equally as enigmatic as their marine counterpart, the land cousin is definitely more glorified in appearance. There's no problem getting close, as long as they are within the trail.



Giant tortoise Geochelone elephantophus porteri NIKON D100 1/19 @ F 5.6 Zoom Length : 70 mm

Exposure Programme : Aperture priority

Exposure Bias : 1.667

Metering Mode : Pattern

Location : Santa Cruz, Sub species found on Santa Cruz

Giant tortoises - the signature of the Galapagos islands. Each island has own sub species adapted to survive on the terrain to which they live. Nowhere else in the world where the process of evolution is more visible.

auto focus speed, for underwater I set up the D1X for macro and the D100 for wide angle and portraits of big animals using the 24mm lens. As a result I was able to get some publishable image of those iffy endemic Galapagos blennies and gobies. The 24mm lens is perfect for portraits of sharks, sealions and sunfish. Again for topside I used the D1X for shooting birds in flight and the D100 mostly for sedentary animals and landscapes. Even with relatively new stock, I make it a point to put in a freshly-charged battery in the D1X on every second dive but for the D100, one battery change is sufficient for an entire day of shooting sometime exposing more than 500 frames. With both cameras, I average about 700 frames per shooting day. Both cameras performed flawlessly above and underwater and a spare D100 body was never used.

Problems: I did have a major one. On the second day, the USB2 socket of the Xdrive became detached from the internal circuit board. I was still able to download images, but there was no way to connect the drive to the notebook to verify the download or to review the images. A quick swap to a back up portable case, allowed me to continue

using the same hard disk. Another photographer using a 1 gig card was less fortunate. Due to insufficient back up media, he chose to shoot in NORMAL mode using a 5 megapixel camera which should yield him about 842 images for the entire trip. On the 10th day of the tour, the card decides to freeze up during a dive in the 15C water – the camera menu literally turns upside down. He lost all the stored images; 10 days of wildlife experience vamoose in a FLASH card instantly! It is vital to download, and even back up the back up images. I am an optimist, but still never trust digital media, they do fail.

By culling unwanted and test shots, I returned with 3981 file images, equivalent to 110.5 rolls of conventional films which would have cost about \$2210 for the stock and processing. In this instance, the images are almost ready for use, and all I have to do is to format those 1gig media and I will be all set for the next assignment. Though I am happy with the result, I am an old fashioned photographer still preferring the colour of films for fine rendition and colour dynamic. Generally digital image lacks tonal range and the contrast is sort of clinical. Don't



*Scallop hammerhead sharks (Sphyna lewini). NIKON D100. 1/100 @ f 9.0.
Zoom Length : 24 mm. Exposure Bias : - .667. Zoom Length : 24 mm
Ambient light. Location: Darwin Arch
Schooling hammerheads – signature of the Galapagos; they are seen on every
dive at Darwin and Wolf.*

get me wrong, digital is here to stay, it is the future, and it will get cheaper and better. As in the thoughts of Charles Darwin's "On the Origin of Species by Means of Natural Selection" – it is not the fittest that survive, but the one that is adaptable to change. There's significant truth in that observation some 150 years later – half the E6 film labs in Sydney have gone belly up in the last few years. The survivors are those that have adapted to supporting digital media. But again Darwin's Theory of Evolution is a very slow gradual

process. Natural selection acts only by taking advantage of slight successive variations; she can never take a great and sudden leap, but must advance by short and sure, though slow steps. Change comes but very slowly.

Michael AW

For information on 2004 Beyond the Ordinary tours check out www.michaelaw.com or email one@michaelaw.com



Michael will only conduct 3 'Beyond the Ordinary' tours per year, he is the author and photographer of: "Beneath Bunaken" – Manado, Tropical Reef Fishes – Indo-Pacific, Tropical Reef Life – Indo-Pacific, Staghorn Coral of the Indo-Pacific, Dreams from a Rainbow Sea – Maldives, Metamorphoses – Great Barrier Reef, 24 hours Beneath a Rainbow Sea – Maldives, "Celebrate the Sea"

Michael Aw's beyond the ordinary

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www.michaelaw.com – limited spots on each tour – one@michaelaw.com



Beyond the Ordinary Galapagos Tour 30 Sept to 11 October 2004

Specially packaged for naturalist and photographers, this tour is acclaimed the best ever put together even by the most experienced guides in the Galapagos; beyond the underwater wonders, topside Galapagos is where one will see and feel evolution in motion. Following the route of Al Gidding when he shot on the Galapagos IMAX 3D, our 12 day tour encapsulate the best of both above and below grandeur of at least 12 of the 14 enchanting islands of the Galapagos. The 2004 tour will be our fourth using this acclaimed itinerary – we are proud to have achieved 100% excellent satisfaction from all our 2003 participants.

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