When Birds Play

One of the most poetic sights I've ever seen in nature was a flock of Shining Starlings flying offshore to roost on a nearby island. The birds numbered in their many hundreds, perhaps even thousands, and created such wondrous shapes in the afternoon sky as you might see generated by a computer programmed to explore ellipses and parabolas and the possibility of the neverending plane. Just as they whirled and dipped to form one perfect, nameless shape, the flock would change direction and metamorphose into another equally astounding formation, as the birds reveled in the sheer pleasure of flying. And there could be no other reason for it: the distance between the mainland and the island was no more than a few hundred metres, yet the spectacle lasted over twenty minutes. In some ways it reminded me of an aerial fireworks display, yet even the best New Year's Eve show couldn't match the spontaneous beauty of this silent symphony in the sky.

I saw this at Chili Beach in Iron Range National Park on the east coast of the Cape, a sight made all the more special because I had no forewarning of its occurrence. I was camped at Chili and happened across it naturally. Later I noticed the roosting was even mentioned on my Hema road map, so it's obviously been a feature for travelers for many years, and deservedly so.

Another glorious sight on offer at Iron Range is the Magnificent Riflebird displaying on his perch in the rainforest. A spectacular looking bird in the first instance with his black satin sheen and metallic turquoise bib, the mature male performs at selected sites throughout his territory in order to attract females to mate with. It's a ritual worth spending the time to catch. In a virtuoso performance lasting anything up to an hour he bobs and skips and hops along his perch like a shiny black clown, sometimes moving sideways or backwards with his head down and bum up, at others standing tall and ruffling or preening his feathers, projecting towards an audience he knows or at least hopes is watching. Occasionally he will wolf whistle, the calls ringing loud and clear through the forest, but mostly he concentrates on his dance steps as if he knows it's all in the moves, baby, all in the moves. Then when finally he catches another bird's attention he really turns it on: the wings go up to form a rustling arc above his head, the bobbing intensifies and he starts swaggering from side to side, and with every bouncing pirouette his iridescent breast patch flashes like a jewel and you can't take your eyes off him. He's a pretty boy, all right, and it's little wonder they call him a Bird of Paradise.

But like many before me I've come to Iron Range to see the Eclectus Parrot and the Palm Cockatoo, and hopefully a Cus Cus or two. These rainforests have much in common with Papua & New Guinean habitats – harking back to a time

when the countries shared a land bridge across the Strait – and nature lovers the world over come to Cape York specifically to see the exotic flora and fauna.

While I'm in the vicinity I hear of a young woman researching the calls of the Palm Cockatoo so I track her down. She's a delightful creature in her own right and if bird watching still carries a daggy image she could single-handedly give it a sexy overhaul. Born and bred in Los Angeles, USA, she put herself through college on basketball scholarships and has the physique of Aphrodite and the olive-skinned beauty of Carmen (only with short hair and a warm personality). Organising to go out with her for a day in the field feels almost duplicitous.

She originally accepted a scholarship to come to Australia to study snakes but switched to Palm Cockatoos when she decided the bird needed more attention. When I ask her if she's happy with the career jump she says she'll jump to wherever she feels she can have a maximum impact on conservation.

"Things are goin' off the map like that, eh," she says, snapping her fingers.

But it's not her motivation that impresses me the most about this woman; it's her passion. When she speaks about the Cockatoo she is engaging, enthusiastic and articulate, almost to the point where the listener gets lost in a trance just watching her lips move. We're crouched together amongst the ashes of a recent fire keeping vigil on a potentially active nesting hollow and the fact that most of our talking is done in a whisper does nothing to reduce the intimate tone of the interview.

"One of the most interesting things about the Palm Cockatoo," she tells me, "is that they're the only non-human species known to create a tool in a non-foraging context.

"Jane Goodall shocked the world by showing us how chimpanzees fashioned tools to get termites, right? And you see New Caledonian Crows making sticks to get to grubs; that's tool making.

"But when the Palm Cockatoo fashions a drum stick to bang on the hollow it has nothing to do with eating. And that's unique among the entire animal kingdom*.

"It's all part of his territorial behaviour. Sometimes you see the males chomp off about fifteen centimeters of a live eucalyptus branch and fly with it to the display hollow and start drumming," she says, miming the action.

"Exactly why they're doing it is speculative, of course, but the drumming has a

certain acoustics to it and they turn their heads to listen, 'Oh no that's not a good spot', and they'll move around to another spot and drum again, then listen," again acting out the scene for me as she speaks.

"We think they're probably saying to any prospective mate in the vicinity, 'Hey, listen to this one, it's a live tree, it's not going to fall over in a cyclone, or burn down in a fire.' As you can see it's fire prone country around here." (The scarcity of suitable hollows means any nesting sites lost to fire can have a real impact on the breeding season.)

"Also, the drumming tells other males there's already a male in this territory, this hollow is taken, stay away.

"It's been recorded in the past where other males have come in and usurped a hollow and smashed the fledgling in the nest, because it takes so long to build the nest it's a huge advantage if they can steal one."

While all we see is the entrance to the nest there's plenty of work goes into making a hollow suitable for egg laying. First the cavity, which might extend all the way to the ground, must be filled with sticks of up to a metre in length to raise the base and give it good drainage in the wet, before the nest platform of splintered sticks and twigs is built on top of that. The process can take many months to complete and it's not hard to see why some birds prefer to outsource the work. This may not do much to aid their poor reproductive rate – along with the Eclectus Parrot they are among the parrot world's least efficient breeders – but it probably increases their collective intelligence.

Carmen of LA is specifically studying their repertoire of calls. And while she stops short of making unqualified statements I get the feeling she rates the birds as smart, suggesting the wide variety of calls they use indicates a complex level of communication, quite apart from their ritualistic use of tools to a degree bettered only by humans.

"Further up the Cape at Moreton Telegraph Station," she says, "I have friends who swear they've seen the birds pruning the Beach Almond trees. Why would they do that if not to produce a heavier crop next year?"

But these are matters for academics to debate; all I know is I'm finding them difficult birds to approach and videotape and I spend all morning in the field without success. Much of the country we cover has been burnt out and the light green shirt I chose to wear as camouflage in the rainforest stands out against the blackened fringe country. I feel like a novice beside the muted purple and khaki worn by Carmen and her field assistant.

During the heat of the day we return to Carmen's shack on the edge of the rainforest, where she lives during the dry season months when she's studying the birds. It's a humble, open-sided affair made available to traveling researchers like Carmen. Creature comforts are few, and apart from a small herb garden there's little sign of permanence. She sleeps in a small bedroom annexed off the larger room and works at a desk set up in the middle of the latter. There is no mains power and she charges her laptop with portable solar panels she moves around to catch the best of the sun.

While we wait for the cool of the afternoon she shows me some of her work. There are several good recordings of the birds' calls – which she tags with descriptive names like "hello" and "double whistle" and "pop toy" (?) – although she says she needs more samples to draw any scientific conclusions. She also has a number of excellent still photographs that traveling photojournalists have gifted her and some shaky but very instructive video recordings she's taken on her own digital camera. In addition she's collected several "drum sticks" and seedpods of the Grevillea glauca – commonly known as the bushman's clothes peg – that the birds have used in their acoustic displays.

At about three in the afternoon we head back into the field. This time we keep away from the burnt slopes of the morning's foray and I've swapped my green shirt for a putrid khaki number I retrieved from the dirty clothesbasket. I may stink, but at least this time I look the part.

We're rewarded almost immediately. As we approach a site she hasn't visited for some time Carmen turns back to me excitedly and gives the thumbs up. Inadvertently we've approached quite close to the nest and through a stand of saplings I can clearly see a bird sitting quietly on the rim of an upright hollow. The red cheek patch is on full display indicating the bird is not at all anxious about us. When they're less than content the birds cover their patch with cheek feathers, so the signs are good we'll get a voyeur's view of whatever happens. And what happens is this:

After about twenty minutes of sitting patiently on the rim, the bird (the female) takes a long look into the hollow then climbs aside to give her mate — who's been incubating all day — room to climb out. He does so and after the most cursory of handovers leaves her to it, obligingly dipping below, then up and over the camera's field of vision as he flies off. Then she climbs head first down the spout and the show's over.

It's not much in this thrill-obsessed world but it's enough to impress the rapt

audience. As I've learnt the Palm Cockatoo is an elusive bird and to see the nest exchange from such close quarters is a real treat, not to mention the positive indication of a successful brood on the way.

"Very, very exciting," Carmen says. "And really rare to see that. I've been studying this bird for five months, morning, afternoon, every single day, and I've seen that activity only twice, that's the second time. So, I'm pretty stoked on that.

"To me, they seem like a very experienced pair. They're a very long-lived bird so they've probably done this many times before. And they've got it down pat, eh. Go in, have a look, switch out, gone. Not even a kiss goodbye."

* Australian scientists have recently discovered an octopus that carries a coconut shell to hide in when threatened – another example of 'tool use' in the animal kingdom.