

# Romancing the Stone... er, Barbet

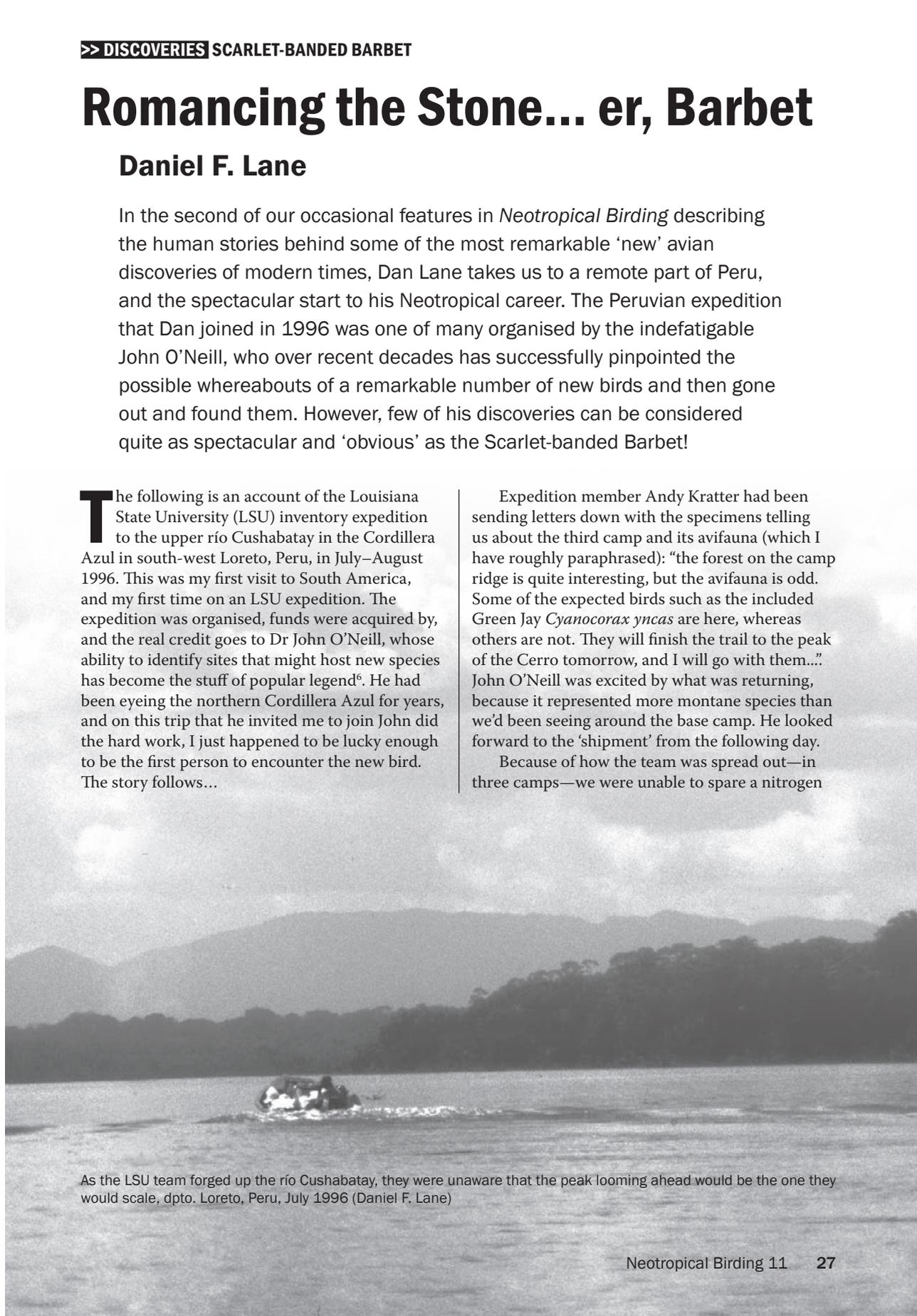
Daniel F. Lane

In the second of our occasional features in *Neotropical Birding* describing the human stories behind some of the most remarkable ‘new’ avian discoveries of modern times, Dan Lane takes us to a remote part of Peru, and the spectacular start to his Neotropical career. The Peruvian expedition that Dan joined in 1996 was one of many organised by the indefatigable John O’Neill, who over recent decades has successfully pinpointed the possible whereabouts of a remarkable number of new birds and then gone out and found them. However, few of his discoveries can be considered quite as spectacular and ‘obvious’ as the Scarlet-banded Barbet!

The following is an account of the Louisiana State University (LSU) inventory expedition to the upper río Cushabatay in the Cordillera Azul in south-west Loreto, Peru, in July–August 1996. This was my first visit to South America, and my first time on an LSU expedition. The expedition was organised, funds were acquired by, and the real credit goes to Dr John O’Neill, whose ability to identify sites that might host new species has become the stuff of popular legend<sup>6</sup>. He had been eyeing the northern Cordillera Azul for years, and on this trip that he invited me to join John did the hard work, I just happened to be lucky enough to be the first person to encounter the new bird. The story follows...

Expedition member Andy Kratter had been sending letters down with the specimens telling us about the third camp and its avifauna (which I have roughly paraphrased): “the forest on the camp ridge is quite interesting, but the avifauna is odd. Some of the expected birds such as the included Green Jay *Cyanocorax yncas* are here, whereas others are not. They will finish the trail to the peak of the Cerro tomorrow, and I will go with them...” John O’Neill was excited by what was returning, because it represented more montane species than we’d been seeing around the base camp. He looked forward to the ‘shipment’ from the following day.

Because of how the team was spread out—in three camps—we were unable to spare a nitrogen



As the LSU team forged up the río Cushabatay, they were unaware that the peak looming ahead would be the one they would scale, dpto. Loreto, Peru, July 1996 (Daniel F. Lane)

>> DISCOVERIES | SCARLET-BANDED BARBET



Counterclockwise from top left

Scarlet-banded Barbets *Capito wallacei*: Larry McQueen's frontispiece from *Birds of Peru*, published by Princeton University Press (reproduced with kind permission of the publishers)

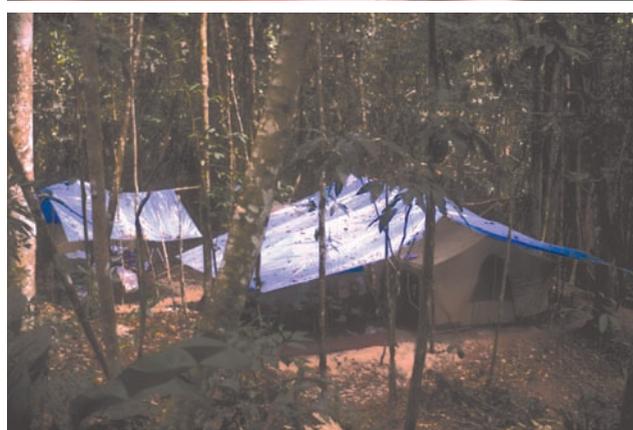
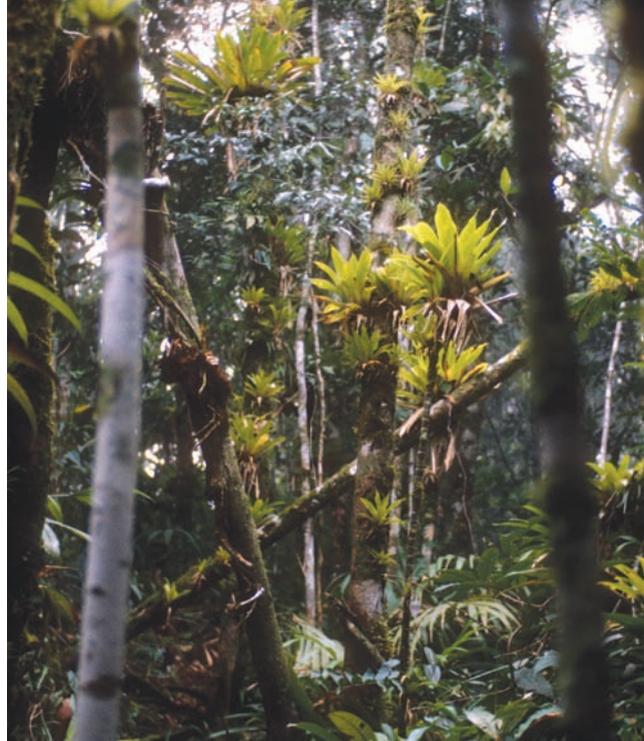
These are some of the first photographs of the gaudy Scarlet-banded *Barbet Capito wallacei*, made atop the Cerro de Cinco Puntos (above, Barry Wright, below, Daniel F. Lane); the expedition members' attention was often drawn to the species by the loud whirring of its wings in flight.

A strangely rare tanager of western Amazonia, White-bellied Dacnis *Dacnis albiventer* (inset) seems to have no pattern of appearance or abundance, except that it perhaps prefers poorer soils, such as on one ridgetop near our Base Camp where we encountered an individual in 1996; Sacha Lodge, eastern Ecuador, July 2009 (Daniel F. Lane)

This golden-chested form of Striped Manakin *Machaeropterus regulus* was another find on the expedition; 77 km west-northwest of Contamana, dpto. Loreto, Peru, July 1996 (Andrew Kratter). There is another golden-chested form in the Tepuis, and it seems probable that the two are closely related. Vocally, the Peruvian form differs strongly from the 'standard' Striped Manakin, but lack of knowledge of the Tepui bird adds a complication in trying to change the taxonomy appropriately.

One of the big surprises of the 1996 expedition was the discovery of a Peruvian population of Dotted Tanager *Tangara varia*, a range extension of over 1,000 km; Cushabatay (Cordillera Azul National Park), dpto. Loreto, Peru, July 1996 (Daniel F. Lane)





Clountercockwise from top left

Yellow-throated Spadebill *Platyrinchus flavigularis* is a rare denizen of the understorey of foothill forests in the northern and central Andes (here, one can see the source of the group name); Cushabatay (Cordillera Azul National Park), dpto. Loreto, Peru, July 1996 (Daniel F. Lane)

The expertise of seasoned field hand Manuel Sánchez resulted in this very comfortable base camp for the LSU expedition at c.300 m elevation (Daniel F. Lane)



The author with local guides Orlando Rivas and Herminio Aguilar, Pampa Hermosa, dpto. Loreto, Peru, August 1996 (Daniel F. Lane)

Here, at the end of the expedition, is the LSU and Lima Museum team (as well as a fair percentage of the inhabitants of Pampa Hermosa); team leader John O'Neill is kneeling left of centre, Pampa Hermosa, dpto. Loreto, Peru, August 1996 (Daniel F. Lane)

Above c.1,200 m, the forest changed from typical 'tropical forest' to more humid cloud forest, complete with festoons of moss and bromeliads; this is the habitat of Scarlet-banded Barbet *Capito wallacei* (Daniel F. Lane)



tank for the third camp to preserve fresh tissues of the birds. Instead, we had agreed that the best plan would be to send collected birds back daily with a Peruvian field hand, who would then transport needed supplies (food, etc.) back to the third camp the following day. A note describing the events of the day and the specimen data, among other things, accompanied each 'shipment'. Only one collecting ornithologist was at Camp 3 at any one time, and we arranged to go up in shifts of one week.

Andy was only able to reach the peak once in his five-day stay at Camp 3 (a strenuous hike of more than 2 km from the peak). His description of the cloud forest and the montane birds (Blue-winged Mountain Tanager *Anisognathus somptuosus*, Pale-eyed Thrush *Platycichla leucops*, Green Hermit *Phaethornis guy*, for example) were cause for great excitement among us 'lowlanders' at the base camp. John decided that I would be the next ornithologist to ascend to the third camp and tackle the peak. I wasn't sure if I was ready, but I was looking forward to it in any case. I would be there a week—seven days without bathing, seven days of heavy hiking, seven days of food with no variety, but a week full of possibilities!

My first full day at Camp 3 was a washout with rain all day, but I was able to learn the song of a *Tangara* tanager that we were hopeful was 'the new bird of the trip.' With the knowledge of this vocalisation, we quickly realised how common the bird was in the area. The tanager was a form unknown in Peru, but we would find upon returning to the USA that it was 'nothing more' than Dotted Tanager *Tangara varia* of the Guianan Shield of north-eastern South America, a range extension for this species of more than 1,000 km!

I climbed the peak on my third day at Camp 3. Just at the transition zone on the Cerro where the forest turned from tropical forest to subtropical (at c.1,200 m) I encountered a lively mixed-species flock and found the trip's first Versicoloured Barbet *Eubucco versicolor*, a montane species reaching its lower elevational limit there. I was also delighted by the many tanagers of various species, many of them montane, foraging above my head. Above 1,300 m, where the true cloud forest began, the species composition was rather distinct from that on the Camp 3 ridge or the lower ridges by the base camp. Unfortunately, I had only about 3–4 hours to explore this strange habitat before having to return to camp.

Two days later (after a day spent on the camp ridge investigating the birds there), on 15 July, I returned to the cloud forest. It was considerably cooler and overcast, the weather apparently unable

to decide what to do. I made sure to bring rain gear, but was 'leery' of the conditions just the same. The cool temperature, occasional drizzle and cloud cover seemed to prolong bird activity and I encountered an active mixed-species flock in the stunted mossy growth of the cloud forest. I turned on the tape-recorder while I observed the members of the flock. Lots of movement made it difficult to remain on a single bird for long, but within a few minutes I had seen or heard species such as Slaty-capped Flycatcher *Leptopogon superciliaris*, Three-striped Warbler *Basileuterus tristriatus*, Masked Tityra *Tityra semifasciata*, White-winged Tanager *Piranga leucoptera* and Lineated Foliage-gleaner *Syndactyla subalaris*, among others. In the middle of the confusion, I caught a glimpse of a bird, or rather, its crown and cheek, but no more. Thinking 'hmm, what's that?' I noted a red crown, white supercilium and dark cheek patch. The only thing those marks fit, given what was expected at the locality, was Yellow-vented Woodpecker *Veniliornis dignus*, so I decided that's what the bird must have been. I stopped the tape to identify the voices I had just recorded, and named the other species seen in the flock. My attention was grabbed again when a chase broke out between two male White-winged Tanagers. I switched the recorder back on. As I taped their chase notes, another bird entered my field of view, perching in the open right in front of me and giving some *Tityra*-like grunting notes. With my right hand, I turned my microphone towards the bird as I raised my binoculars with my left.

My jaw dropped. It was the bird I had called *Veniliornis dignus* (which, by the way, we never found at the site) just a minute before, but clearly it was not a woodpecker. It was a barbet... but one that wasn't illustrated in either the Colombia field guide<sup>2</sup> or the barbet plate by Larry McQueen for the as-yet uncompleted *Birds of Peru*<sup>5</sup> (we had copies of the plates of the latter to 'field test'). I spoke while keeping the microphone on the bird, and was amazed later to hear how calm my voice seemed "The bird I am looking at now is a new species of barbet..." (recording available on [www.xeno-canto.org](http://www.xeno-canto.org): XC62885). I started to describe the bird into the microphone. It was breathtaking: in addition to the aforementioned head pattern, the barbet had a white throat bordered with a bold red belt and golden-yellow underparts becoming orangey on the flanks. The back was mostly black with an irregular series of spots of red, then gold, then white, running from the nape to the rump. It had to be a *Capito* barbet and it somewhat resembled one I remembered seeing in Hilty &

Brown<sup>1</sup>. But Peru was known to have only two species of *Capito*, and we'd already encountered both! This had to be new!

The bird was joined by a second, nearly identical in plumage, and both flew over my head and away. I was awe-struck and a little disappointed that they were gone. Then one flew back and landed right above me. And then I had it in my hands! Excitedly, I called to Manuel Sánchez, who was just coming up the trail. "Don Manuel, if you see anything that looks like this, collect it! It's a new species!" Within two hours, Manuel had acquired two more and before leaving the cloud forest I shot a fourth.

I sent the specimens back to John and the others with a note stating in capital letters "DO NOT OPEN THIS TUPPERWARE UNTIL YOU HAVE READ THIS!!" The letter attempted to set the scene and break the news gently. I was excited to find, two days later when I returned to the base camp, that John agreed: it was indeed a new species.

In the month to follow, we (actually, mostly Manuel) acquired a few additional specimens of the barbet. Andy and I made arrangements to spend a night in a makeshift campsite on the peak (where there was no running water) and we were able to take behavioural notes, get more recordings, and photograph living barbets. Even after we ceased collecting them, the barbet seemed to be quite numerous in the cloud forest, for up to eight could be seen daily from the relatively small area accessible from the footpath (the undergrowth and lie of the forest preventing much 'bush whacking').

I am pleased to report that various birders have returned to the 'barbet peak' and found the bird to be very common there. Some have acquired more tape-recordings and video of the species, adding to the store of knowledge on this new and exciting species. In 2000, we formally described the barbet in the *Auk* and christened it the Scarlet-banded Barbet *Capito wallacei*<sup>3</sup>. The main questions that still perplex us are how large is the population of this bird and how widespread is it? 'Barbet Peak' is not particularly near any other mountains of comparable height; the nearest adjacent peak over 1,200 m is more than 10 km to the north, whilst a larger range (disjunct from the Andes) lies 40+ km to the west. Do the barbets get that far? In 2000, O'Neill organised another LSU expedition (which I also joined) to the larger range of the Cordillera Azul with one of the main objectives of finding another population of the barbets. We spent two months at that site, ascending to 1,700 m elevation, but we didn't encounter the barbet. However, we

never could reach the kind of tall cloud forest in which we found the barbet in 1996, so perhaps we were simply in the wrong place. Intriguingly, in 2008, Mike Harvey, Glenn Seeholzer (both now in the graduate programme at LSU), and Ben Winger (currently at the Field Museum, in Chicago) discovered another barbet in the eastern Andes of Peru. This new population certainly shares many characters with the Scarlet-banded Barbet, but it is unique in others. That bird will be described in a forthcoming issue of *Auk*. These two cases of discovery, taken with the tens of others of newly described species from various corners of South America (and elsewhere!) are reason enough to demonstrate that a child-like wonder and joy of discovery of the complexity and beauty of nature is still appropriate in this day and age. Despite our having found, named and categorised most birds on this Earth, there still remain some on which we have not even laid eyes. Knowing that is a wonderful feeling, isn't it?

## Postscript

Collecting specimens figures heavily in this piece and I have made little attempt to soften the 'reality' of a typical South American inventorying expedition. This locality had never been studied by biologists (the cloud forest atop the peak on which we discovered the barbet had perhaps never been previously visited by humans), so the likelihood of new bird species was good, but without specimens, one might not ever know. Many species and subspecies are by far more cryptic than our barbet, and often only by comparing a specimen with a series of specimens of related forms from a wider geographic area can one confirm the existence of a new taxon. This issue was well illustrated by the discovery of yet another new species, far less colourful and obvious, which we described more recently<sup>4</sup>. Indeed, the still-undescribed barbet to which I alluded in the previous paragraph suddenly diminishes the 'obvious uniqueness' of the Scarlet-banded Barbet; without specimens and their DNA samples, it would be difficult to say how different the two are.

Specimens provide more than just skins for museum collections. They also provide information on diet, age, sex, plumage, moult cycle and soft-part colours (which are immensely helpful to artists as well as scientists), elements not easily assessed without collecting. It would take perhaps 50 hours of intense field work to obtain the same dietary information as the stomach contents of five specimens. Even then, how many consumed insects could be identified to species using only



Top to bottom

A sunset view looking west to the main axis of the Cordillera Azul from the top of Cerro de Cinco Puntos, dpto. Loreto, Peru, July 1996 (Daniel F. Lane)

Relatively few birders have made the expedition necessary to reach the so-called Peak 1538 and its Scarlet-banded Barbets *Capito wallacei*; this photograph was taken by one of the few enterprising birders to have made the trip; May 2002 (Barry Wright)

binoculars? Frozen tissues are saved and enable later taxonomic work in the laboratory, as well as providing the raw material for toxicological and other environmental studies. Tissues such as these are immeasurably more useful for genetic

studies than blood samples, and not preserving the source (that is to say: to keep a 'voucher specimen', rather than releasing the bird after taking blood) may result in doubt in the identification of the individual in the future, especially in this age of rapid taxonomic changes.

We must remember that birds reproduce, and a small series of specimens does not permanently affect a local population. Unless there is only a vanishingly small number of individuals of a species left in the world, collecting even a moderate series of specimens has little effect on the overall (or even local) population of a species—particularly when compared to the greater cause of mortality: habitat destruction. In the case of the barbet, we made sure we ceased collecting before we made any noticeable impact on the local population. Of course, such collecting expeditions into the hinterlands also have conservation benefits. The discovery of the barbet made it one of the flagship species that led to the creation of the Parque Nacional Cordillera Azul, one of the largest national parks in Peru<sup>1</sup>, which now protects literally millions of individual birds and substantial populations of other wildlife! Science still needs (and always will) collections to help determine how ecological communities work and, in the end, to save them.

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