

THE LINNAEAN
NEWS



LETTER

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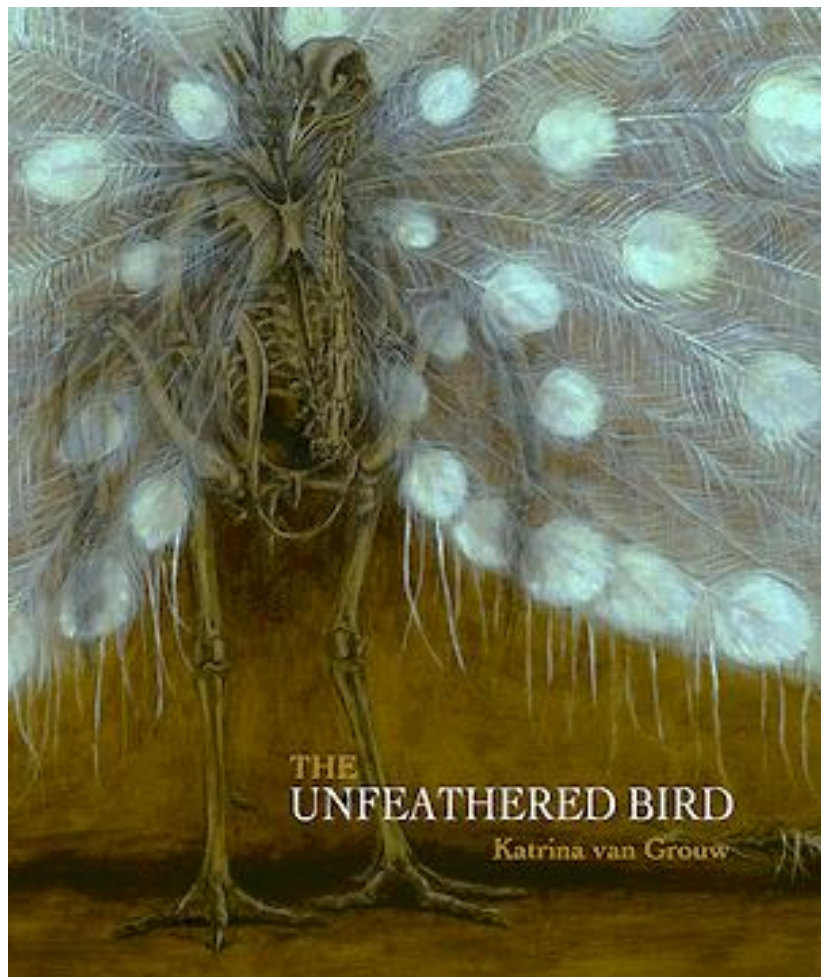
REVIEW – *THE UNFEATHERED BIRD*

Chuck McAlexander

[*The Unfeathered Bird* by Katrina van Grouw. 2013. 287 pp. Princeton University Press. \$49.95]

The first thing you notice about this book is the alert and watchful attitude of the male Indian Peafowl (or peacock) on the dust jacket. He is dark and jagged, dangerous looking and has a full set of ghostly display feathers that make his head come off the page in your direction. He is staring at you with no eyes. He is, after all, a skeleton and the threat he poses is more of a dare. He seems to ask, “Do you have the nerve to see what’s inside? It might change your appreciation of your beloved birds. And change is always risky.”

The skill to create this masterful drawing along with the intelligence and nerve to use it in such an important place are indicative of the high level of work and unfettered creativity to be found inside. The drawings reveal detail and shape so well you feel you should be able to pick up the bones and rotate them for better understanding. Even more impressive is the way artist/author van Grouw manages to get a drawing of a skeleton to impart something of the behavior of the bird. Or maybe, by revealing such detail of form, she is demonstrating the



way structure and behavior are linked, influencing each other in an eternal dance of changes. This might be one of the reasons the book exists at all.

PLEASE SEE IMPORTANT ANNOUNCEMENTS ON LAST PAGE

In fact, she says just that in the introduction, but not until after she rushes to reassure the squeamish that there are no “guts or gizzards” included in the book. While this is technically accurate, there is a gray area where you could accuse her of transgressing the spirit of the statement. The “ick” response is generally triggered by the presence of soft tissue, especially if it looks wet or slimy. You will find windpipes (tracheae), tongues, voice boxes (syrinxes or syringes) and muscles in some of the drawings. Probably the worst offender is the Trumpet Manucode (p. 278, a bird-of-paradise) with its “extraordinary coiled windpipe” which may well be taken for a pile of intestines were it not for the neatness of the coil. Thus, the extremely sensitive reader might be bothered by this breach. To her credit, however, van Grouw made these soft parts as dry as the bones, but still just as alive. Her treatment is well within the spirit of her promise.

Her second disclaimer, that there is “no biochemistry and very little physiology” is completely accurate. I did, however, have to crack open my Webster’s 11th to be sure of that. It would indeed be difficult to cover much biochemistry or physiology without the organs, tissues and cells, a.k.a. “guts and gizzards” dispensed with in the first disclaimer. So, having fenced off these two big areas of anatomy from our fragile senses, what remains? Morphology – and the book has it in spades.

The organization of the material in the book is as logical as it is delightfully unorthodox. Rather than covering the various aspects of avian structure in modern taxonomic order she reaches back to “the first truly scientific classification of the natural world – the *Systema Naturae* of Linnaeus”. What her book has in common with that one is a concern with outward appearances and the structures which form them. She invokes the concept of convergent evolution as an explanation of the underlying logic. It serves well. However, if you are disturbed by this heresy, try to remember this is ostensibly an art book. It just happens to have a more than

generous helping of clear, understandable text to help you comprehend what is in the drawings.

The book is divided into two uneven parts. The small first part uses more familiar species, to Europeans at least, to demonstrate and explain the basic structures common to all birds. Van Grouw is thorough, but doesn’t belabor the point she is making. As an example, there are six drawings revealing the left leg and foot of a Mallard covering two adjacent pages (pp. 16-17). The text describes how the leg fits together and how it articulates, but it is all in plain English, with little reliance on technical nomenclature. She does call a “thigh bone” a femur, but a hip is still a hip and a knee is a knee. She wants you to understand the basic structure so when you look at the leg of another bird, a Southern Screamer for example, you see the same parts, but also the differences – that is, after all, the point of the book. She isn’t trying to bury you in information. To prove my point (and belabor it a bit), she describes the scaly, unfeathered part of a birds legs and feet, but did not once use the term podotheca.

The second, and by far the larger part of the book, describes anatomical structures found in birds with shared behaviors or niches and therefore, similar adaptations. Obviously, there isn’t room for treatment of every species with a shared feature, so van Grouw describes the basic elements using a single species. Then she brings in descriptions of variations on that theme using both image and text. When you have finished reading the section and looking at the drawings you haven’t learned how to differentiate a Mallard from a scoter, but you know they are as different as they are similar. You can pick up an incredible cache of information if you want it, but that isn’t a requirement for enjoying the book.

Perhaps the one feature that distinguishes this collection of bird drawings from others is van Grouw’s ability to show how all these bones relate to each other in a live bird. Each skeleton exudes the nature – personality if you will allow it – of the species it is. You can feel

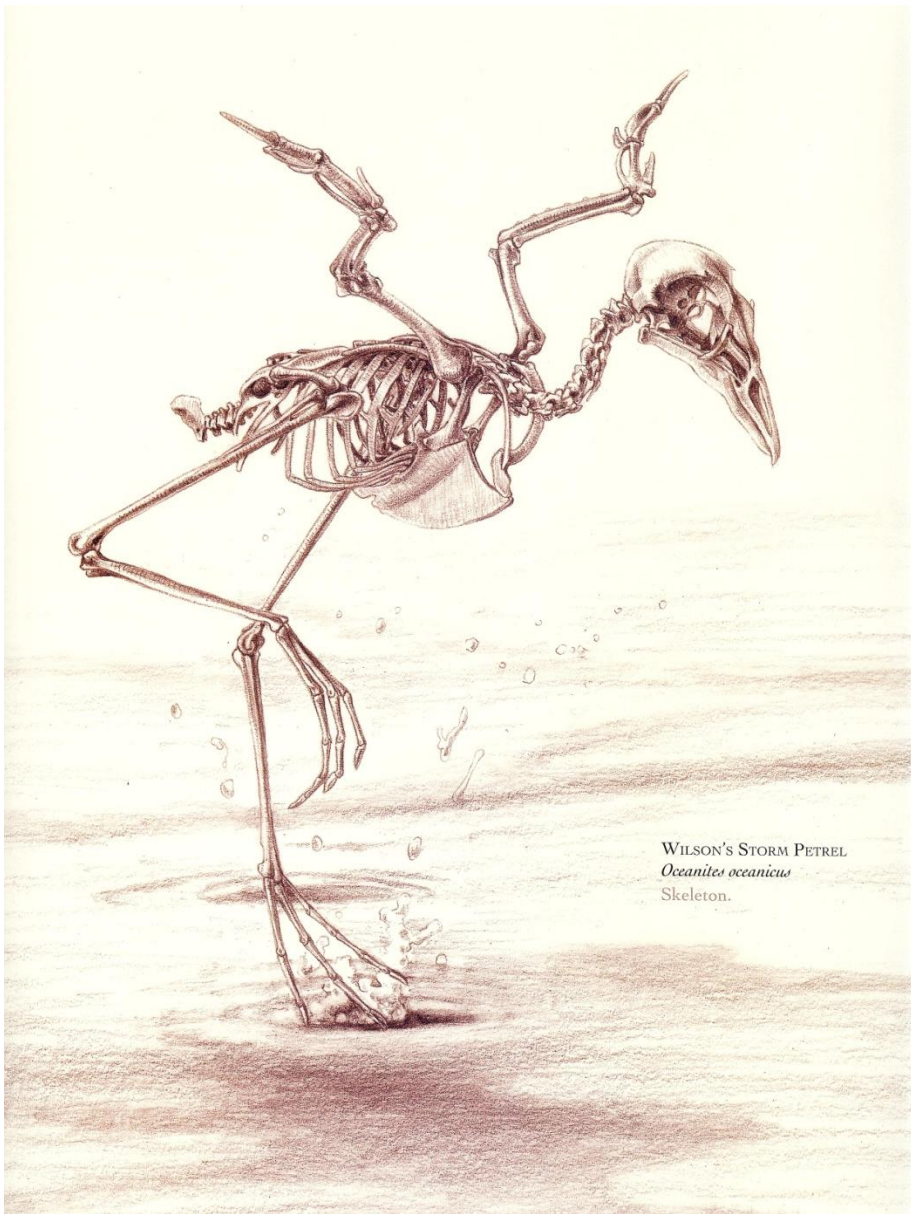
the weight of a heavy bird like the Maribou Stork (p. 176); likewise the lack of it in the White-throated Hummingbird (p. 81). The Common Black-headed Gull (p. 151) has its bill open, its neck a little extended, and its wings a bit out and down. You can almost hear it complaining. The same is true for the Jackass Penguin (pp. 112-113) only its upside down head is tucked under its belly as if it were braying at something low and behind it. These are very believable, active poses you are not going to find elsewhere.

Van Grouw's sense of humor adds to the mix, too. High on the list in this category is a skeleton Budgerigar (p. 57) perched on a dowel, not a branch, looking at itself in a mirror with an attached bell. I won't try to explain it. It's too deep and too funny all at the same time. There is also a Eurasian Sparrowhawk (p. 40), no feathers, with a Eurasian Collared Dove in its talons – caption: "Feathers removed and feathers being removed." Priceless!

Finally, the book ends with European Robin (p. 282) – dare I say "Cock Robin" – and he (it) is most assuredly dead. As dead, in fact, as all the others are alive. It's as though van Grouw intended to accentuate the lack of life in this drawing just to point out how much of it there is on the preceding pages. The point was well made. All that remains is the index, but even there a Mallard is laughing at you to begin it and showing you its backside to end it. You get the feeling he'd stick out his tongue if he had one.

It would be easy to dismiss this work as "just another coffee table book" if you didn't look at anything but its size and shape. And certainly it would serve well in that capacity, but there is much more to this volume than some pretty pictures and some words nobody will care to read. There is a synergy of element and effort in this work that produced a volume I will treasure for a long, long time.

To Katrina van Grouw, I say bravo. And thank you. Now, get to work on the one with guts and gizzards. I can hardly wait.



THE EVOLUTION OF *THE UNFEATHERED BIRD*

Katrina van Grouw

“Just who is Amy, anyway?”

It was a passive inquiry. My inquisitor simply imagined the mystery muse as a family member, old friend, or childhood mentor; someone who had inspired the idea for the book, perhaps, or nurtured it through the twenty-five year struggle from start to finish. My answer took him by surprise.

The Amy in question – the object of the dedication in the front of *The Unfeathered Bird* – was, in fact, a dead duck. She was never even a live duck. By that I mean that she was nameless until the day I picked up her fresh but lifeless corpse on the beach and decided she was a suitable subject for my next project.

I was an undergraduate Fine Art student of 22 with a passionate interest in natural history in general, and birds in particular. My college artwork was life-sized, Audubonesque, copper plate engravings of dramatic birds doing dramatic things. I'd thrown myself with gusto into ornithology: trained to be a bird ringer; taught myself taxidermy and prepared bird skins as a volunteer at my local museum.

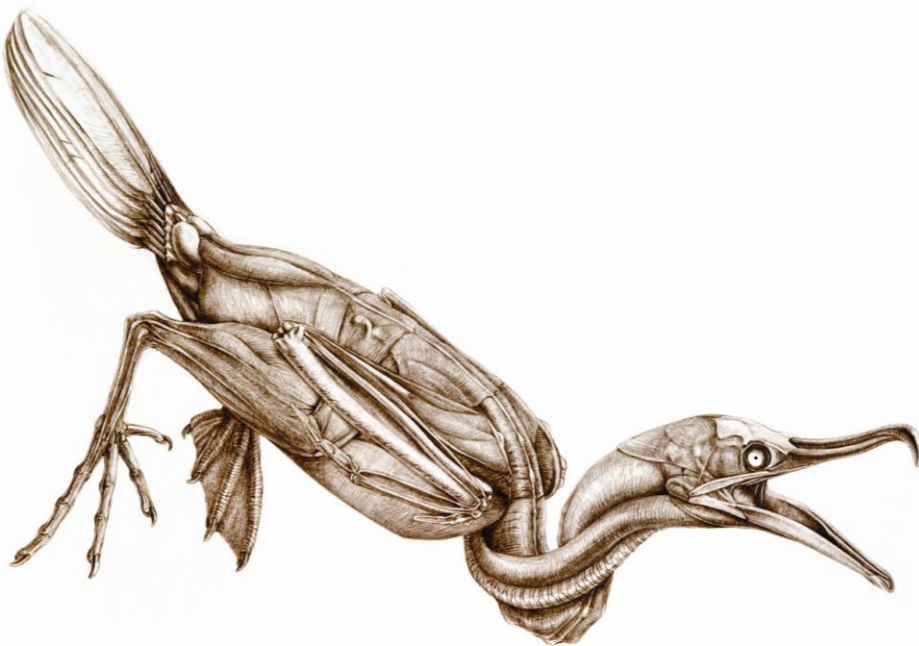
All to kindle the flame of inspiration for my pictures of living birds.

What I was looking for that day, down on the beach, was a bird I could dismantle in stages, make drawings of, layer by layer, bone by bone; strip down and then re-assemble again as a skeleton. I wanted to ‘do a Stubbs’.

If you're going to spend several months intimately involved with a dead duck, it's got to have a name. So I christened her Amy. The drawings of her and other early specimens were bound into a book with a professional looking title embossed in gold on the cover: “The Anatomy of Birds”. Little did I realize what this humble collection would evolve into.

I would love to say that I spent the intervening years actively researching, writing and drawing the illustrations for the book that was to become *The Unfeathered Bird*, but reality is seldom so neat. It didn't take shape all at once and remained a long while an ugly duckling before it finally developed into a swan. The first hurdle, I thought, was to convince a publisher that there would be a market for an anatomy book for bird artists. Yes, it began as a book for artists, and only much later did I realize that it might have wider appeal. Science publishers pointed me in the direction of arts publishers, gave me a shove, and slammed the door. And arts publishers directed me back to the science lot.

What I ultimately wanted to do was combine the beauty, the attention to detail and sheer artistry typified by the best historical illustrations – my old hero George Stubbs, Thomas Eyton in his wonderful *Osteologia Avium*, and the brilliant James Erxleben who illustrated Moa bones for Richard Owen – with up-to-date, jargon-free text that relates birds' structure with their lifestyle and evolution.



It was 2008 before the dream finally became a reality and work would begin in earnest.

Of course, there's no point in producing an anatomy book about bird behavior if the drawings don't show birds engaged in that behavior. Articulated skeletons in museums are usually shown in static or inaccurate positions, and are often slightly worse for wear.

No, wherever possible I needed freshly made skeletons made by someone, like me, familiar with the outside of birds as well as their internal workings. Someone who could assemble a skeleton in any position I chose, leaving me time to draw them and write the text. A search finally yielded just the right man for the job: the drop-dead-gorgeous curator of birds and mammals at the Natural History Museum of The Netherlands – Hein van Grouw.

So I married him.

No birds were harmed during the making of the book. I relied exclusively on the goodwill of birds dying in places where they could be found, and the goodwill of people who were willing to pick them up for me. I had a freezer full of road kill and oiled seabirds; corpses were donated or loaned by biologists, taxidermists, aviculturists, and conservation charities. The boiling began and the house was transformed. Evil smelling buckets whose contents were best left to the imagination or denied altogether, appeared outside the back door and drying bones were lined up next to the crockery on the draining board.

While the bone factory chugged away downstairs, I'd be up in my study drawing the next subject on a seemingly never ending list; craning my neck over an enormous sheet of paper to see close-up details on an equally enormous skeleton on the other side. (I have a

stubborn habit of working life-sized; a ridiculously impractical habit that causes only neck ache and storage problems). Drawing the musculature of birds in lifelike positions meant rigging up some complicated device of wires, pins, thread and blocks of wood – the same technique that Audubon used, with a few modifications – to make a faintly grotesque artist's mannequin.



However, I'm not so much of a traditionalist that I'm against making some digital enhancements. One of these was to adjust the color of the illustrations. Lead pencils may be my preferred medium to handle, but grey tones can look a bit dry and academic. And with a subject matter so

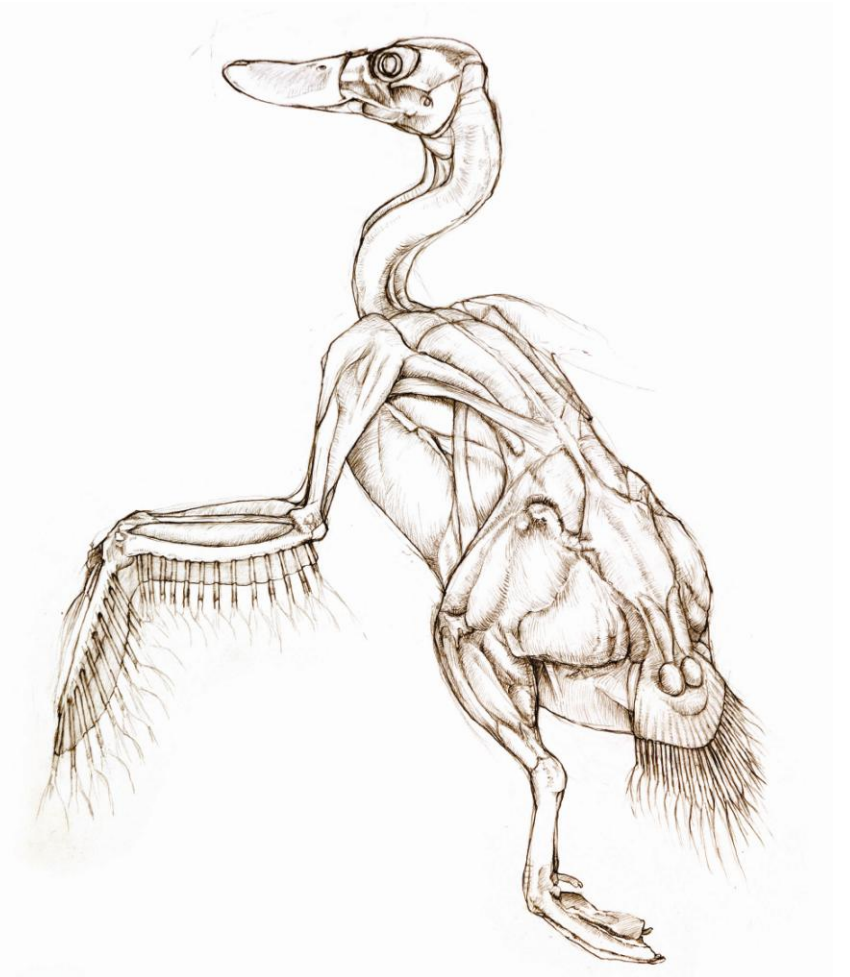
steeped in preconceptions about college textbooks, that was something I wanted to avoid at all costs. I'd already decided that the book would follow the long-outdated taxonomy of Linnaeus, so a choice of warm, sepia lines against a background of pale cream paper seemed to fit the historical theme quite perfectly.

Yes, the choice of Linnaean taxonomy caused many a sleepless night. More than one ornithologist had asked, in a scholarly fashion, which order I intended to use, and it had soon become apparent that I wouldn't be able to please everyone. The problem is that many quite unrelated birds have come to resemble one another through occupying the same niche – a process called convergent evolution. I wanted to remain firmly on the fence in the hot debate. That's not what the book is all about.

What the book is about is adaptations. For example, to show how competitive pressure for survival has raised ostriches onto only two toes so that they can run faster, shaped penguin wings into blade-like paddles; how having an enormous breastbone has enabled sandgrouse to commute and how tinamous have risen above their disadvantaged background by sheer stealth tactics. So it made sense to arrange my birds solely according to external characteristics and habits, as Linnaeus had done – similar groups brazenly sharing the same chapter without the slightest concern for their actual evolutionary relationship. Of course, throughout the text I've taken pains to discuss birds' actual relationships; the latest theories thrown up by molecular studies, but the order of chapters remains firmly in the eighteenth century.

In my living room, the skeleton of a Mallard looks down at me benevolently from its glass case. Amy is by no means the most elegant specimen in my possession, but she

has a very special place in my affections. Who would have thought a dead duck could do so much?



[EDITOR'S NOTE: The above article by Katrina van Grouw appeared in the May 2013 newsletter of the Linnean Society of London (*PuLSe* 18: 4–5) and is reprinted with their kind permission. All illustrations are by Katrina van Grouw:

- p. 4: Great Cormorant (*Phalacrocorax carbo*)
- p. 5: Great Hornbill (*Buceros bicornis*)
- p. 6: Mallard (*Anas platyrhynchos*) – “Amy”]

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**MORE ON *THE WARBLER GUIDE***

Joseph DiCostanzo

In my review of *The Warbler Guide* by Tom Stephenson and Scott Whittle (2013, Princeton University Press) in the October 2013 issue of the *Linnaean News-Letter*, I mentioned among the many features of the book a series of two page “quick finders” that compare various views of warblers. These “quick finders” are available on line as free downloads from the website [thewarblerguide.com](http://thewarblerguide.com). They are available in either PDF or JPG file formats. Also available for free download at the website is a PDF file of a four page guide to ageing and sexing of fall eastern warblers. In addition to thumbnail photographs illustrating various plumages and brief descriptions of the relevant marks to look for, the guide lists which species cannot be aged and/or sexed in the fall.

After the October issue of the *News-Letter* came out, Linnaean member Rick Wright informed me of a major paper on warbler songs by Lynds Jones published in *The Wilson Bulletin* over a hundred years ago (Jones, L. 1900. Warbler Songs. *Wilson Bulletin* 12(1):1-56). As in the new Stephenson and Whittle guide, Jones attempted to simplify the learning of warbler songs by grouping the species by characteristics of the songs with no regard to the then accepted taxonomic arrangement of the warblers. Jones describes the songs of forty-six species, stating that “eleven species [have] yet to be studied.” The Jones paper can be downloaded at [sora.unm.edu/node/3075](http://sora.unm.edu/node/3075). The paper is a fascinating look at the state of knowledge of warbler songs before the advent of modern aids such as recordings and sonograms. I thank Rick for bringing it to my attention.

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SORA

Joseph DiCostanzo

In my immediately preceding note I listed a website for the downloading of an old ornithological paper. Many Society members may be unaware of this tremendously useful resource on the Internet. It is the Searchable Ornithological Research Archive (SORA). The site is the result of a collaboration between four North American ornithological societies (American Ornithologists Union, Cooper Ornithological Society, Association of Field Ornithologists, and Wilson Ornithological Society) and the University of New Mexico Libraries. The website can be reached at sora.unm.edu. At SORA you can search for and download articles from fifteen American ornithological journals and monograph series: *The Auk*, *The Condor*, *International Wader Studies*, *Journal of Field Ornithology* (formerly *Bird Banding*), *Journal of Raptor Research*, *North American Bird Bander*, *North American Birds*, *Ornithological Monographs*, *Ornitologia Neotropical*, *Pacific Coast Avifauna*, *Studies in Avian Biology*, *Texas Ornithological Society*, *Wader Study Group Bulletin*, *Western Birds*, and *The Wilson Bulletin*. Note, for nearly all of these publications, the issues from the last five to ten years are not available on this site. For recent years you will usually need to have a current membership in the organization that publishes the individual journal or access privileges at a research library. The materials on SORA are available for free download for “personal, noncommercial, or educational use.”

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**MALCOLM C. COULTER**  
**1947 - 2013**

Joseph DiCostanzo

Malcolm Coulter was not a Linnaean Society member. However, he did receive the Society's Eisenmann Medal in 2008.

I first met Malcolm when he was a Chapman Post-Doctoral Fellow in the Ornithology Department at the American Museum of Natural History in the late 1970s. He could be shy and quiet, but I most remember his sense of humor and that he always seemed to be laughing at something.

Malcolm grew up in Virginia, attended the Pomfret School in Connecticut and graduated from Stanford University. He received a Master's from Oxford University and a Ph.D. from the University of Pennsylvania. His research interests covered many areas and took him to many parts of the world. As a graduate student he studied Western Gulls on the Farallon Islands where he also worked on the Ashy Petrel. Later he worked in Antarctica and on Great Gull Island. At the Darwin Research Station in the Galapagos he led a conservation program working to save the threatened Galapagos Petrel. Back in the United States he headed a program at the Savannah River National Laboratory working with the endangered Wood Stork. This last led him to decades of work to study and conserve threatened and endangered storks in such far-flung places as Russia, Korea, Southeast Asia, India and Africa. In all these areas, he worked with amateurs as well as professionals.

In 2003, the Waterbird Society honored him at their meeting in Cuiaba, Brazil for his work with that organization. Unfortunately, ill-health prevented Malcolm from receiving the Linnaean Society's Eisenmann Medal in person in 2008. Before his death on January 2, 2013, the Pacific Seabird Group chose him for their Lifetime Achievement Award, which was presented posthumously.

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ANNOUNCEMENTS

ACTIVITY FOR MEMBERS ONLY

Saturday, November 2: Graham Arader, America's preeminent dealer in antique maps and natural history fine art, will lead a tour of his gallery and his private collection in his residence above the gallery. The gallery is currently showing works that will be auctioned on November 9, featuring flowers done in watercolor on vellum by Pierre-Joseph Redouté, nearly a third of the original hand-colored prints in John James Audubon's *The Birds of America* and about half the original hand-colored lithographs in his final work, *Viviparous Quadrupeds of North America*. To register for the tour, contact Geoffrey Nulle at 212-864-4703 or jnulle@yahoo.com.

NOVEMBER 12th MEETING

Early Meeting: The write-up in the 2013-2014 Linnaean *Schedule of Events* of the 6 pm meeting – Elijah Shiffer and other musicians playing his bird-inspired composition *Islands in the City* – should have mentioned that he won *DownBeat* magazine's Student Music Awards in 2009 for original song and original extended composition and received the Young Jazz Composer Award in 2008 and 2010 from The American Society of Composers, Authors and Publishers (ASCAP) and was a finalist in 2012.

Regular Meeting: As scheduled, the speaker at the 7:30 pm Regular Meeting will be Katrina van Grouw, author of *The Unfeathered Bird*, the book reviewed and featured in this issue of the *News-Letter*.

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**LINNAEAN NEWS-LETTER**

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