

Kenn Kaufman THE PRACTICED EYE

A Tribute to VIREO

In 1979, ornithologists associated with the Academy of Natural Sciences of Philadelphia began an innovative program: the world's first systematic, scientific collection of bird photographs.

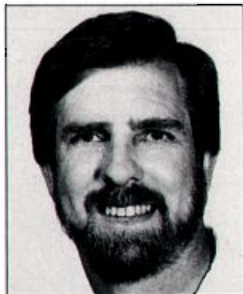
A scant dozen years have passed since then, but the collection already has become firmly established

and universally recognized as an integral part of the ornithological world. Almost all ornithologists and birders have heard of VIREO, and most can even remember that the letters in the acronym stand for "Visual Resources for Ornithology."

The growth of this collection has been nothing short of phenomenal: it now covers thousands of bird species, in tens of thousands of photographs. And new uses for the collection are developed almost daily, as scientists, educators, editors, and publishers learn to rely on it as the ultimate source. As the importance of the collection continues to grow, its name—at least the "Visual Resources" part—seems too modest. The letters could just as well stand for

"Very Impressive Resource" or "Virtually Indispensable Resource for Ornithology..."

With this issue of *American Birds*, we complete five years of "The Practiced Eye"—a column that could not have existed for those five years without the visual feast served up by VIREO. This seems like an appropriate time to turn the practiced eye inward, so to speak, and take a look at VIREO itself.



In "The Practiced Eye," our focus converges mainly on how to recognize the birds. There is no question that VIREO is incredibly useful for anyone studying field identification. Photographs capture many aspects that

museum specimens cannot, such as postures and shapes in life, colors of eyes and feet and bill, and subtleties of facial expression. In addition, photos clarify many details of flight pattern and flight silhouette that the human eye (no matter how practiced) has difficulty in perceiving.

But despite the value of VIREO for field identification, this is hardly the only use for the collection. Anyone who has ever tried to describe a bird's nest in detail will understand that a photo is a more effective (and faster!) way to convey information about a nest's structure, placement, and appearance. Development of young in the nest can be documented day by day with photos. Territorial or courtship displays,



Baird's Sandpiper (*Calidris bairdii*). Since the early 1970s, field observers have become far more aware of seasonal variation in the appearance of birds—in particular, variation owing to age differences. This is most pronounced in studies of shorebird migration. During fall migration, adults and juveniles of most shorebird species can be distinguished, revealing age differences in timing and even routes of migration. This Baird's Sandpiper is a juvenile, as revealed by the crisp white or buff edges to the feathers of the back, scapulars, and wing coverts, and the warm buff wash on the head and chest. Photograph / Arthur Morris / VIREO.

roosting postures, and numerous other behavioral phenomena can be best captured with photography. VIREO contains numerous examples of all of these aspects of breeding and behavior, plus many others.

The depth of coverage in VIREO is partly owing to the fact that the contributing photographers have been no casual shutterbugs. Indeed, many leading ornithologists are represented in the collection. Roger Tory Peterson has paid special attention to penguins—and hundreds of his penguin photos are in VIREO. M. Philip Kahl has done research on storks, flamingoes, and other large waders around the world—and has given detailed photographic studies of them to VIREO. J. P. Myers has done advanced work on the ecology of migrant shorebirds—and has produced shorebird photographs of enduring scientific and artistic value. The list of photographer/scientists in VIREO goes on and on, with names like Zimmerman, Pettingill, Ridgely, Cruickshank, Forbes-Watson, Dunning, Parker, Munn, Remsen, Peckover, and many more.



VIREO was originally the brainchild of dynamic ornithologist Frank B. Gill and Renaissance man Crawford H. Greenewalt. Among Greenewalt's many accomplishments, was his pioneer use of high-speed flash for stop-action shots of birds in motion, and he has continued to work on refinements in bird photography. Although his tropical hummingbird portraits are his best-known photos, Greenewalt also experimented with shots of common North American birds like this Magnolia Warbler (*Dendroica magnolia*). These photos of temporary captives were done with a carefully measured scaling factor, so that precise size and proportions of the birds could be reconstructed from the images. Photographs / Crawford H. Greenewalt / VIREO.



Adult Forster's Tern (*Sterna forsteri*). Flight patterns are very important in field identification for many birds. However, it is difficult for the human eye to be certain of those details that create our impressions of wing and tail patterns on a bird in the air; sharp flight photos allow us to analyze these patterns at leisure, gaining insights to be used later in the field. Photograph / Robert Villani / VIREO.

Blackpoll Warbler (*Dendroica striata*) captured for banding. Many banders have contributed portraits of hand-held birds to VIREO. While such photographs have no commercial value (and would not be accepted by photo agencies), they have definite value to researchers who want details about the appearance of the birds in life. Photograph / James Stasz / VIREO.



Adult Bristle-thighed Curlew (*Numenius tahitiensis*) at nest, with downy young, in western Alaska. VIREO has very good coverage of the breeding behavior of many species. Indeed, photography is a valuable way to record details about nesting: factors such as microhabitat, nest placement, patterns of downy young, etc., are often more easily pictured than described. This particular VIREO photograph has historical value as well: it was taken by Henry Kyllingstad, who masterminded the search that finally turned up the nesting grounds of Bristle-thighed Curlew in 1948.

Leading field birders are also well represented. As the birding scene encompasses fewer and fewer collecting permits, and more and more cameras, photography is becoming the standard way of "proving" records of vagrant birds in new areas. One of the major features of VIREO today is the collection of photographs that document rare bird occurrences.

With archival conditions designed for maximum longevity of the slides, with an advanced computer system for cataloguing and retrieving images, and with the cooperation of amateur and professional ornithologists from all over the globe, VIREO seems destined to continue growing in importance—to continue as the world's number one collection of bird photographs.



VIREO now holds images contributed by hundreds of photographers. Many of those photographers have had particular strengths or specialties, allowing them to add to the collection in unique ways. For example, Barth Schorre takes advantage of the heavy spring migration on the Texas coast: he sets up his photo blind next to a source of water in the woods, and thirsty migrants parade in front of his lens. Schorre has supplied VIREO with portraits of most of the migrant songbird species of eastern North America, such as this male Painted Bunting (*Passerina ciris*).



No two individual birds look exactly alike, and the extremes of individual variation can sometimes pose vexing challenges. VIREO houses many photos of albinistic birds, hybrids, and other aberrant birds. The gull pictured here, found in New York in November 1978, was widely mis-identified as a Common Gull from Europe (*Larus c. canus*) but was ultimately proven to be a small-billed, undersized Ring-billed Gull (*Larus delawarensis*). Photograph / Thomas H. Davis / VIREO.



A pair of adult Laughing Gulls (*Larus atricilla*) in alternate (breeding) plumage. The development of photography is recent enough that VIREO can encompass much of the history of bird photography. The late Allan D. Cruickshank (1907-1974), one of the first great bird photographers, worked extensively in black-and-white prints before shifting his attention to motion picture work. His wife Helen G. Cruickshank, also a fine photographer, concentrated her efforts on color slides. Between them the Cruickshanks photographed almost all the bird species of North America; thousands of their images are now on permanent file in Philadelphia. Photograph / Helen G. Cruickshank / VIREO.



The characteristic "facial expression" of a bird species is often very distinctive, but it is something that can never be determined from a museum specimen: shape of the eye and precise arrangement of the tiny head feathers can be seen only on the living bird. Close-up portraits of many species in VIREO, like this juvenile Long-tailed Jaeger (*Stercorarius longicaudus*), provide a unique source of information. Photograph / Sid Lipschutz / VIREO.



This Terek Sandpiper (*Xenus cinereus*) that showed up in late July 1987 at Sooke, Vancouver Island, British Columbia, established the first definite Canadian record for this esoteric Eurasian shorebird. A few decades ago, such a record would have been documented by collecting the specimen, or disregarded altogether; today, photography is the medium of choice for proving the identity of these vagrant birds. But these documentary photos still need to be filed for retrieval, as specimens would be. VIREO archives the photos that prove many of the most significant recent bird records for North America. The cooperation of the *American Birds* network, and a grant from the American Birding Association, were essential in establishing the rare bird file in the collection. Photograph / Tim Zurowski / VIREO.