

# Back to Birding

***Paul R. Ehrlich***

*Original illustrations  
by Julie Zickefoose*

*Magdalena Alpine Butterfly*

I HAVE ALWAYS LOVED BUTTERFLIES. I COL-  
lected them when I was a kid, published my first  
scientific paper about them when I was fifteen, did  
my doctoral dissertation on their classification, and  
have done research on their evolution, ecology, tax-  
onomy, and behavior ever since. I have always  
thought a good way to die (at age 110 years, of  
course) would be to fall off a cliff while trying to  
net an *Erebia magdalena*, a rare dark denizen of  
talus slopes in the high Rockies.

Even when I've strayed from the Lepidoptera,  
there has usually been a butterfly connection, ex-  
tending to research on the butterfly fishes of Aus-  
tralia's Great Barrier Reefs. But in spite of this,  
somehow birds have always been there in the back-  
ground. My first serious birding was done as a col-  
lege student working in the Arctic and subarctic for  
the Northern Insect Survey of the Canadian gov-  
ernment. I still have my battered copy of the sec-  
ond edition of Peterson's "A Field Guide to the  
Birds," with such notations as "Churchill, Mani-  
toba" after Short-eared Owl and Horned Lark,  
"Hay River, N.W.T." noted after the White-  
crowned Sparrow and Red-winged Blackbird and  
"Resolute Bay, N.W.T." after the Red-throated  
Loon and Purple Sandpiper. All of those species, of  
course, are ones that most birders first check off in  
more southerly locations.

In what still ranks as the most thrilling summer  
(1952) of my life, the Survey sent me in George  
Miksch Sutton's footsteps to Coral Harbor on  
Southampton Island in northern Hudson Bay.  
There I hired Eskimos, one of whom had helped  
Sutton more than 20 years earlier, to assist me in  
working on the rare Arctic butterflies which were  
my main interest (and which Sutton had also col-  
lected). But I had plenty of time in the long days  
to also study and photograph the amazing array of  
birds nesting on the tundra. I spent hours photo-  
graphing birds by setting up my Bolsey camera on  
a tripod over nests and activating the shutter with  
a long length of fishing line as soon as an adult  
bird returned. I got a number of bird portraits that  
way, including a beauty of a Semipalmated Plover.

I also have fond memories of being stranded at  
Duke of York Bay at the Northern end of South-  
ampton Island. There I scaled a cliff to take a  
picture of a young Peregrine Falcon in the nest,  
while the adults skimmed along the cliff face, div-

ing at my head in an attempt to dissuade me. That  
photograph and another of a Long-tailed Jaeger  
were published thirty years ago in an Audubon So-  
ciety book, *In the Arctic*. At Duke of York Bay, I  
also spotted my first (and to date *only*) Gyrfalcon.  
In its honor, I named the channel leading past  
Cape Welsford into the bay, through which pan  
ice was moving and preventing a seaplane from  
extracting our party, "Falcon Strait."

Birding occupied even more of my time in the  
summer of 1953, when I worked at the weather  
station at Resolute Bay on Cornwallis Island,  
north of the North Magnetic Pole. Resolute had  
rafts of King Eiders and many Rock Ptarmigan in  
a rock desert location that supported no butterflies  
at all. It was there that, thanks to the sharp eyes of  
a young demon birder named Bob Goodell, I saw  
what for decades was my "best" bird—Ross' Gull.  
It stood on an ice floe for a long time, providing  
us with a very fine look through a spotting scope.  
Because I didn't start checking off common birds  
when I did field work outside of the North until  
1985, for years I could tell birding colleagues that  
my life list looked like the gaps in theirs.

After Resolute Bay, a career in butterflies took  
over. I watched birds casually when I had a chance  
during my field work, but it was a desultory thing.  
While butterflying in Madera Canyon, Arizona, a  
local birder gave my wife, Anne, and myself a  
good look at a trogon. We enjoyed kookaburras,  
rosellas, and Bell-miners in Australia, sunbirds in  
the Virunga volcanoes, Superb Starlings on the  
Serengeti Plain, and albatrosses and other pelagic  
birds when traveling by ship. The only times I  
concentrated on birds were on trips to the Antarc-  
tic and to the Galapagos Islands, where I could not  
study butterflies. So for three decades, my interest  
in the avian world was largely confined to follow-  
ing research on the population biology and behav-  
ior of birds in the scientific literature—although  
two of my doctoral students did their dissertations  
on the community ecology of birds.

It was actually my involvement in trying to  
solve environmental problems that rekindled my  
interest in birds. In the face of the growing extinc-  
tion crisis, my research associate Bruce Wilcox  
and I established the Center for Conservation Biol-  
ogy at Stanford in 1982. The Center's first big pro-  
ject was the study of the island biogeography of  
butterflies in the Great Basin. Each mountain  
range in that region is a moist island in a desert  
sea. By understanding patterns of colonization and  
extinction on those "islands," we hoped to cast



*Juvenile Peregrine Falcon*

light on the requirements (size, shape, degree of isolation, etc.) of nature reserves designed to protect invertebrate species. When soon after our work began it became clear that we should be making comparisons between the distributions of butterflies and those of birds and mammals, we started doing bird censuses.

About the same time, I was discussing conservation problems and the Center's activities with Jared Diamond of the University of California at Los Angeles, a distinguished ecologist who has worked extensively on the avifauna of New Guinea and neighboring islands. He urged me to get involved in research on birds. I told him that I didn't think I would be much good in the field because of my color-blindness, but he maintained

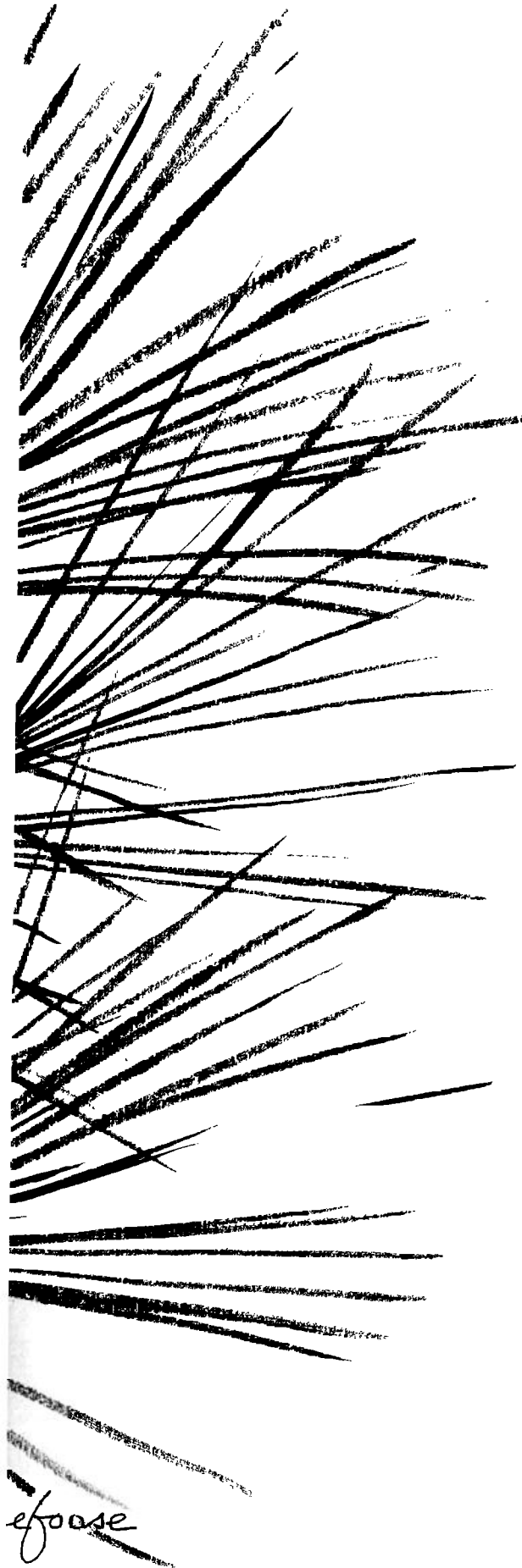
that would not be a serious barrier. We both agreed that birds were politically much more important animals than butterflies, and that they should play a central symbolic role in our efforts to halt the loss of biodiversity.

It wasn't, however, Jared's intellectual arguments (delivered in his kitchen) that sealed my fate. After some talking, he dragged me, binoculars in hand, into his backyard in a canyon in suburban Los Angeles. Soon Jared had me peering at *Phainopepla* and listening to the call of a Bewick's Wren. I was instantly hooked.

The last three years have been a kaleidoscope of birding experiences. Jared fired me up in May of 1984, and in June I was censusing Warbling Vireos and other birds with a field party from our



*Elegant Trogon*



Great Basin project. By July, at the Rocky Mountain Biological Laboratory in Colorado, Anne and I and Darryl Wheye (who has worked with us for years) were birding whenever our long-term butterfly work at the field station would permit. That fall, I decided to go whole hog. Stanford's Department of Biology tends to be rather theoretical, and there are often complaints from students that it doesn't offer enough courses about "real animals." Since I had a very knowledgeable ornithologist, David Dobkin, as a postdoctoral student at that time, I proposed that we jointly offer a course in ornithology in the spring of 1985. There's nothing like giving a course in a subject you know little about to make you learn it fast—especially if you're trying to stay one step ahead of very smart undergraduate students. David did a lot of teaching and I did a little teaching and a lot of learning, and the course was a great success.

That same spring, Anne and I managed to get away on a quick field trip to southern Arizona, Big Bend National Park, and the lower Rio Grande Valley. I doubt if I'll ever have such a successful birding trip in North America again—since I was able to add 78 species to my life list. Perhaps the high point of that trip was seeing trogons again in Madera Canyon a quarter of a century after Anne and I had our first experience with them.

As I had expected it would, my renewed interest in birds has given me lots more ammunition to use in the battle to maintain environmental quality. I have seen Black-capped Vireos in their small remnant habitat on the Edward's Plateau outside of Austin, Texas. One could hardly hear the birds singing for the roar of bulldozers chewing up land adjacent to that occupied by the remaining population. There is a program of cowbird suppression in the area, but unless a program of bulldozer suppression is launched soon, the vireos will disappear anyway.

I've had the opportunity of going into the field with David Wilcove, whose work has been so important in helping us to understand the role of forest fragmentation in reducing passerine populations in eastern North America. I have also taken advantage of my old student Harry Recher, now an outstanding ornithologist, ecologist and conservationist in Australia. Harry, Anne, and I birded together for a couple of weeks in Australia, and helped encourage resistance to insane forestry practices that threaten many elements of that continent's fascinating avifauna as well as the forests themselves. Ecologist Stuart Pimm (who has done



*Black capped Vireo*

superb field and theoretical work on the introduced Hawaiian bird fauna) and I have studied drepanidid finches together in Hawaii and are planning a long-term research project on invasive species and conservation of Pacific island bird communities.

All of this has allowed me to introduce more bird examples into lectures about the human predicament. Audience response has made it clear that anecdotes about endangered birds and endangered bird habitats have much more impact on the general public than tales of threatened butterflies, reptiles, or even (in most cases) mammals.

My ultimate baptism of fire in the bird world came, however, as a result of the ornithology class. Our students used several of the current excellent guides to identification of North American birds, but it became clear to David Dobkin and me and Darryl Wheye (who was also helping with the course), that the guides were useless for answering the questions that students asked most often. The guides did an excellent job of helping to identify a bird, showing its distribution, and describing its song, but they didn't tell, species by species, how the birds lived. The only volumes that did that were far too large and heavy to carry on field trips.

As a result, David and Darryl and I decided to write a *Field Guide to the Natural History of North American Birds* to complement the identification guides. Little did we know what a horrendous task we were undertaking, but now, two years later, the job is done. The guide will be published by Simon and Schuster in the Spring of 1988. The left-hand pages will have some 650 species "treatments," which give information on the biology of each bird that breeds dependably in North America (as well as all of our extinct birds). Each treatment starts with a "summary line," presenting in symbols, numbers, and key words basic information about nest position and type, mating system, which member of a breeding pair performs various chores, clutch size, length of incubation, time to fledging, principal foods taken when breeding, and major foraging techniques. This information is expanded upon in a subsequent paragraph, along with such items as breeding habitat, displays, nest construction, egg size and color, enemies, conservation status, etc. The paragraph also gives the wintering range of any species if it extends south of the US-Mexican border. This information is listed under conservation, to emphasize how important tropical wintering grounds are to the preservation of many North American species.

On right-hand pages, where the pictures usually are in bird guides, we have arranged some 200 mini-essays dealing with a wide variety of topics in bird biology. These range from the recent work on bird classification and descriptions of how birds fly, navigate, copulate, and vocalize to essays on polyandry, brood parasitism, size and sex in raptors, habitat selection, community ecology, and various topics related to conservation (including essays on each extinct species).

As far as possible, the essays are placed opposite the treatments of birds they relate to. Thus, opposite the warblers that Robert MacArthur studied in his classic work on partitioning of food resources, we have an essay describing those studies. How oystercatchers teach their young to open oysters is across from the oystercatchers; why hummingbirds pause so long between feeding bouts is with the hummers. Each treatment is cross referenced to essays that are especially pertinent to that species. It is our hope that, after observing a species on a field trip, birders will, perhaps during lunch, read one or two of the short essays designed to expand their knowledge of that bird and of avian biology in general. And to make the book useful at home as well as in the field, each species treatment and essay is accompanied by references to the pertinent recent literature (about 1400 citations in all, primarily from the last decade).

As I said, the job proved daunting. We started by reading and extracting information from all 26 volumes of Bent's "Life Histories of North American Birds." We updated this partly outdated baseline information with a comprehensive survey of the scientific literature on birds, and then imposed upon a large number of colleagues who were specialists in different groups to review both treatments and essays. The work occupied us day and night for two years, but we all greatly increased our knowledge of birds.

One of my reactions to a total and wonderful immersion in the world of birds has been annoyance with myself. For twenty years, I've been running around the United States and the rest of the world giving lectures and pleading with people to pay more attention to the problems of population growth, resource depletion, the deterioration of the environment and the threat of nuclear war. This is often a frustrating exercise, made all the more disappointing when there is virtually nothing constructive one can do with butterfly populations for most of the year or when on short speaking tours.



*A freelance artist and naturalist who lives in East Haddam, Connecticut, Julie Zickefoose works extensively from life, studying and sketching birds in the field. Her art has appeared previously in American Birds and on the covers of Bird Watcher's Digest and Bird Observer. She is currently at work on paintings for Birds of Insular Newfoundland by William A. Montevocchi, and preparing illustrations for a book on Ospreys by Paul R. Spitzer.*



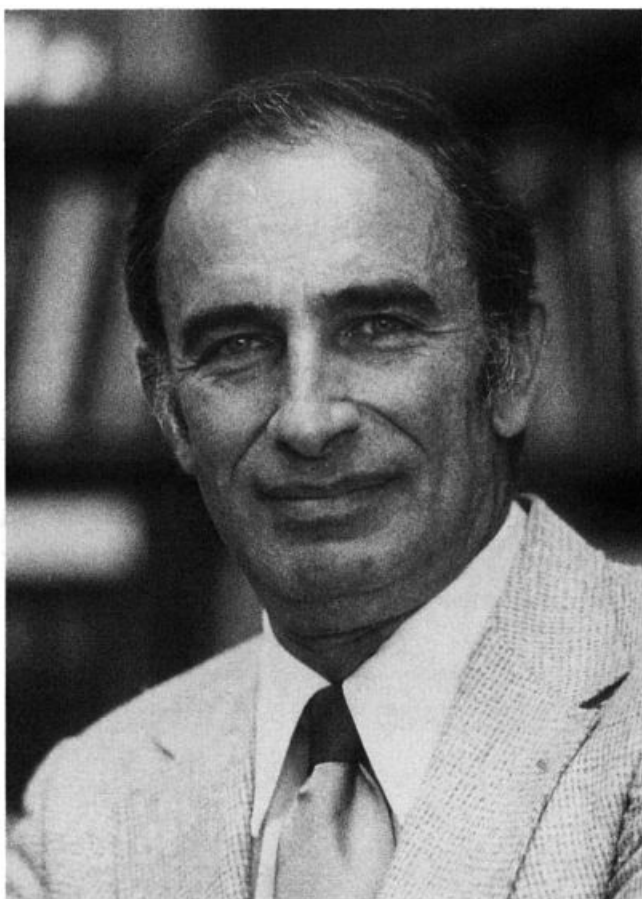
*Ruby-throated Hummingbird*



For the last three years, however, I have been taking my binoculars with me and having a good time almost everywhere. Summer or winter, there are interesting birds to watch—even if only perusing the antics of starlings near a downtown Dallas hotel on a cloudy December day. On a particularly dreary 10-day whistle-stop tour of England in November, lecturing about the ecology of nuclear war (all you had to do to show what nuclear winter would be like was point out the window), I saw my first English Robin in a park in downtown

London and spent a wonderful few hours with colleagues in a wood near Oxford watching the Blue Tits that have long been under study there. And last February, on a visit to Houston to lecture on the population crisis, I had a fabulous day trip to the Anahuac Reserve on Galveston Bay. At the reserve, I saw all six species of North American rails, including about a dozen Yellow Rails, all on the same day. Yes, I'm delighted to be back in birding—I'm just kicking myself around the block for having dropped out for 30 years!

**P**aul R. Ehrlich is one of the world's most effective and best known champions of what he calls the "ecological services" that nature provides. Through his tireless and eloquent campaigning millions of people have been made aware that Planet Earth has a limited carrying capacity and that, with our ever-increasing population, we are pushing those limits. He has been instrumental in predicting the biological effects of nuclear war, and serves as a spokesman for scientists concerned with biodiversity, delicate community interactions, and other ecological concepts.



Ehrlich is professor of Biological Sciences and Bing Professor of Population Biology at Stanford University. For nearly 30 years he has studied the dynamics of fragmented populations using as his subject the Checkerspot Butterfly (*Euphydryas editha*), an inhabitant of serpentine grassland outcrops of California.

He is a member of the United States National Academy of Sciences, a fellow of both the American Academy of Arts and Sciences and of the American Association for the Advancement of Science. He is Honorary President of Zero Population Growth, Inc., and past President of the Conservation Society.

Ehrlich is a respected scientist with impeccable credentials who is able to stir grassroots activism. He has been in the avant garde of the conservation movement since his publication of *The Population Bomb* in 1968 (revised edition 1976, Ballantine Books, New York). This seminal work shocked the world into an awareness of the ecological danger of overpopulation.

He and his wife Anne Howland Ehrlich, a Senior Research Associate in Biological Sciences at Stanford University, have collaborated for more than two decades on policy research in human ecology. Together they have written: *The End of Affluence* (1975, American Reprint Co./Rivercity Press, Mattituck, New York), *Extinction* (1981, Random House, New York), and most recently, *Earth* (1987, Franklin Watts, New York).

Paul Ehrlich's 1986 book, *The Machinery of Nature* (Simon & Schuster, Inc., New York) was a best-seller. His latest ecology textbook, co-authored with Jonathan Roughgarden is *The Science of Ecology* (1987, Macmillan Publishing Company, New York).

Although Dr. Ehrlich's many interests and activities had kept him from actively birding for some years, we are now honored to welcome him back to the birding fold.

S.R.D.