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PROCEEDINGS of  
the LINNAEAN SOCIETY of  
NEW YORK



~R. STEBBINS~

ON THE COVER: *Selected examples of 77 specimens from the hybrid Collared/Spotted towhee (Pipilo ocai/maculatus) population of Cerro Viejo, Jalisco, Mexico. These eight specimens include the two extremes in the sample and some typical intermediate examples. See Charles G. Sibley, Hybridization in the Red-eyed Towhees of Mexico, page 6.*

PROCEEDINGS *of the* LINNAEAN SOCIETY *of* NEW YORK





FIGURES 1A AND 1B. Typical examples of the two species of red-eyed towhees of Mexico: upper, *Pipilo ocai*, Collared Towhee, lower, *Pipilo maculatus*, Spotted Towhee.

PROCEEDINGS *of*  
*the* LINNAEAN SOCIETY *of*  
NEW YORK



1977-1995



### **The Linnaean Society of New York**

The Linnaean Society of New York, organized in 1878, is the second oldest of existing American ornithological societies. Regular meetings of the Society are held on the second and fourth Tuesdays of each month from September through May. The Annual Dinner, followed by the Annual Meeting and Election of Officers, is held during the second week of March. Informal summer meetings are held on the third Tuesday of each month from June through August. All meetings are open to the public and are held at the American Museum of Natural History.

Persons interested in natural history are eligible for election to membership in the Society.

The Society conducts field trips and maintains a library for its members. It distributes free to all members a monthly *News-Letter* and, at irregular intervals, an issue of *Proceedings* containing longer articles, general notes, and annual reports of the activities of the Society. Less frequently, the Society publishes lengthy papers in its *Transactions* which members receive free or at a substantial discount.

Communications about membership and inquiries about publications should be addressed to:

Secretary, Linnaean Society of New York  
15 West 77th Street  
New York NY 10024

Please refer to pages 150 and 151 for a list of publications available from the Society.

### **Officers of the Linnaean Society (Elected March 11, 1997)**

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## *President's Note*

**T**hese are the first *Proceedings* of the **Linnaean Society of New York** since 1977 and the Society's first publication of any kind since the *Transactions* of 1981 containing papers presented at the Society's Centennial Symposium on Colonial Waterbirds, both under the editorships of Catherine Pessino and Marc Weinberger. Subsequent editors, Richard Cech, Katherine A. Ray, Jill Hamilton, and Eric Salzman, have worked on this current volume.

The Society plans an expanded publication program in the near future with publications on the natural history of the New York area as well as a more regular publication of both the *Proceedings* and *Transactions*. The Society therefore invites the submission of suitable papers and proposals.

JOSEPH DICOSTANZO  
*President*



# Roger Tory Peterson: *In Memoriam*

**Julio de la Torre**

*President, The Linnaean Society  
of New York*

IT IS NOT often that an individual comes along who, in a modest and relatively unassuming way, not only dismantles an obsolete world view and transforms the foundations that underlie the way we perceive reality, but provides a new framework, a new paradigm, to replace the old one.

If Roger Tory Peterson had not lived, it's a good bet that I would not be writing and you would not be reading these lines. The impact of his work and personality was so profound and so pervasive that it changed the study and appreciation of nature, a revolution in perception that led to a remarkable expansion and legitimization of field biology. Such powers are seldom accorded to any one man. When the gods have the grace to bestow gifts like these on someone like Roger, a man who was expansive, perseverant, enthusiastic, generous, charming and blissfully free of affectation, the world has a lot to be grateful for.

Roger Peterson's career was intertwined with the Linnaean Society for almost seven decades. He joined the society in 1927, the same year that his mentor, Ludlow Griscom, became president. It was Griscom who pioneered the conversion from fowling piece to field glass as the main weapon of field identification. His *Birds of the New York City Region*, published in 1923 by the American Museum of Natural History with the Linnaean Society, had become the bible of the young members of the Bronx County Bird Club, all disciples and acolytes of Griscom and all Linnaeans as well. Roger liked to say that he was the first non-Bronx member to be accepted into the BCBC and it was in the outdoor ambiance of the Club and the indoor give-and-take of Linnaean that the problems and achievements of the new, nascent field ornithology were hammered out.

It was another Linnaean president, William Vogt (later founder of Planned Parenthood), who prodded Peterson into synthesizing these new

discoveries in visual and book form and who, on completion of the manuscript, took on the job of toting it around until a publisher could be found. It was the same Ludlow Griscom who field tested and approved the new work and Houghton-Mifflin of Boston (where Griscom had relocated) who finally put it out. The Peterson System was launched.

Roger wrote handsomely about the Linnaean Society in his *Birds Over America*, winner of the John Burroughs medal in 1948. It is one of his finest achievements. Another is *Wild America* (1955), written with James Fisher, the narrative of a transcontinental bird-listing romp in a successful attempt to topple the previous “Big Year” record of 497. Today’s Big Year totals are much higher but we are standing on the shoulders of giants. *The Bird Watchers’ Anthology* (1957) is a lovingly gathered collection of gems from the treasure chest of ornithological literature. He introduced or wrote the foreword to what seemed like every book on birds ever published during his lifetime. Of the 45 or so volumes in the Peterson Field Guide Series, he authored or co-authored all the editions of the Eastern, Western, Texas and Mexico bird guides plus the guide to Eastern Wildflowers. The entire series, with all its constellation of satellite materials ranging from recordings to software programs, is an enduring monument to the man whom many consider to have been the greatest force for conservation in our time.

In recognition of his merits, the Linnaean Society elected him a Fellow in 1953. When the Society celebrated its centennial in 1978, it was natural that Roger would be the featured speaker at the annual meeting (see the Annual Report for 1978-79 below) and the Eugene Eisenmann Medal was presented to him in 1986, an award that itself commemorated a Fellow and past president of the Society (see the Eisenmann bibliography in this volume).

In spite of all this, it should not be thought that Peterson’s relationship with Linnaean was purely a love feast. The Linnaean crucible can be a pretty hot place and no one knew this better than Roger who was roasted over the coals more than once. The measure of the man was his unfailing good will, inexhaustible energy and constant striving to better his own performance, even as he sought to inspire and encourage those around him to finer achievements of their own. He seemed constitutionally incapable of failing to hold out a helping hand—even to potential rivals.

Peterson’s persistence at bettering his own performance is easily demonstrated in his art. Start with the 1934 first edition of the Eastern field guide (recently reissued by Houghton-Mifflin in a commemorative edition) and look at the warblers or the sparrows; then check out these birds in the 1947

revision and the early versions of the Western guide, the new Eastern guide of 1980 and the new Western of 1990. The pilgrim's progress from artistically minimal to acceptable to good to superb will be quite obvious.

Roger wanted, above all, to be known as a great artist rather than as merely an illustrator and posterity will be the ultimate judge of his success in that. Painter and wildlife artist Don Eckelberry has pointed out that it was Peterson's work, in all its range and breadth, that helped create the modern interest in nature and fascination with nature art, which has itself led to a renaissance of nature depiction as an art form.

Roger really loved to go birding; to have seen him in action afield was an object lesson in mastery, grace and modesty. The setting is Lighthouse Point Park, New Haven, Connecticut, in mid-October in the midst of a wave of migrant sparrows. Roger, in a powder blue parka, and I are looking at a Savannah Sparrow. Suddenly, I feel a tug on my coat sleeve and, turning around, find myself face to face with a young woman who flashes a winsome smile and says, "I'm sorry to bother you, but I've just started birding, and I have trouble telling sparrows apart and someone said you know all about them...and...I was wondering...could you explain to me how you can tell them apart...?" I grinned from ear to ear, bowed to the ground, and said, "My dear, how would like to hear about the Little Brown Jobs from the Emperor Penguin himself. Roger Tory Peterson, behold a beautiful fledgling birder who wants to learn the sparrows!" What followed was Roger at his most sublimely engaging; it was as if no one had ever asked him to run down a bird before. And what a job he did: the disarming courtesy, quiet precision, concentration, unfeigned fascination with his subject, and undisguised enthusiasm were all there working in unison. They flowed from him as naturally as water from a mountain spring. Here indeed was a master at work!

Roger was not a conventionally religious person; indeed, he was candid, disarming and witty about his uneasiness with people who tried to get him to believe in the traditional omnipotent deity. But he was religious nonetheless, believing in an immanent (as opposed to transcendental) force or realm of noumenal reality to which an agnostic might in good faith ascribe a sacred character. He passionately believed in the sacredness of life and he eloquently upheld the importance of a sacramental view of that natural world, the love, understanding and conservation of which he did so much to foster.

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# *Hybridization in the Red-Eyed Towhees of Mexico*

Charles G. Sibley

IT HAS BEEN more than 50 years since the spring of 1946 when I began a study of the complex pattern of interbreeding between the Spotted Towhee (*Pipilo maculatus*) and the Collared Towhee (*Pipilo ocai*) in Mexico (Fig. 1, 2). The several degrees of hybridization between these “semispecies” provide insight into the process of speciation and the “species problem.” This is an account of the field work between 1946 and 1954, with a synopsis of the results presented in four publications between 1950 and 1964, cited below under References.

I will use *Pipilo maculatus* for the Spotted Towhee, although the cited publications use the specific name *erythrophthalmus*. The difference reflects a change from the recognition of *maculatus* as a subspecies of *erythrophthalmus* to a separate species.

I began graduate study at the University of California at Berkeley after graduation in 1940, but World War II intervened. I was discharged from the Navy in December 1945 and registered as a Ph.D. candidate in Zoology for the spring semester of 1946, with Alden Miller as my major professor.

For a thesis project, I had decided to study geographic variation in the Spotted Towhees of the western United States and began to assemble the literature and examine the specimens in the Museum of Vertebrate Zoology. During the spring of 1946 a shipment of specimens arrived from Helmuth Wagner, a German zoologist who was living and collecting in Mexico. Frank Pitelka, who was curating the collection, examined Wagner’s material and called my attention to some towhee specimens from the Mexican highlands near Mexico City. Frank had tried to identify the specimens from the literature and found that they didn’t match any of the descriptions. “You’d better have a look at these,” he said, and I did so. The specimens were intriguing because the literature on the Mexican towhees and the specimens from Wagner suggested that there were either several species or, possibly, hybrids



involved. I developed an hypothesis that proved to be wrong, but the mystery was so compelling that I decided to go to Mexico to investigate the situation. John Davis had decided to study the Brown Towhees, so we planned a joint trip for the summer of 1946.

I had been to Mexico on three previous field trips. In the spring of 1939 and in September 1941, I had accompanied Seth Benson, Curator of Mammals in the Museum of Vertebrate Zoology, to Sonora, mainly to collect mammals. During the summer of 1941, John Davis, Robert Storer and I had visited eastern and central Mexico, south to Guerrero. I had also collected birds during 19 months in the southwest Pacific and Philippines while serving on naval bases during 1944-45. The most useful background was the four years of Spanish I had taken in high school, supplemented by the trips with Benson and a Mexican assistant who spoke no English; Spanish was our common language and we discussed many topics each day while preparing specimens.

John and I left Berkeley on June 22 in his panel truck. We passed through Laredo, Texas, into Mexico on June 26-27, and arrived in Mexico City late on June 28, where we stayed in a motel. During the night a door handle of the truck was broken off in an attempt at burglary. On June 30 we drove north to Pachuca and to Real del Monte, six miles east of Pachuca. This is the type locality of "*Pipilo maculata*" described by William Swainson in 1827, so it was a logical place to begin. We camped in a small clearing in the fir forest at an altitude of 9600 feet. By July 3 I had obtained 16 specimens of "Spotted Towhees" and it was apparent that the mystery was deepening. Two species had been recorded from this area, *P. maculatus* and *P. macronyx*, but my specimens from this one locality bridged the morphological gap between them. This was the beginning of the study of the effects of hybridization between *Pipilo maculatus* and *Pipilo ocai*. The field studies were to continue at intervals until 1958 and the results are recorded in four publications (Sibley, C. 1950 and 1954; Sibley, C. and D. West, 1958, and Sibley, C. and F. Sibley, 1964).

One day, Davis had gone to an area where Brown Towhees were present and I hunted in the area where I had obtained the specimens noted above. I returned to camp at noon and began to prepare lunch. I heard a nearby shot that I knew was from John's gun and I expected him to walk into camp in a few minutes—but he did not appear until late in the afternoon. He had become disoriented and passed close to the camp without recognizing the area. He continued on until he encountered a local inhabitant and managed to communicate the problem. The Mexican knew who we were and the

location of our camp and brought John to the site. It was a sobering experience and we took extra precautions to stay oriented thereafter.

Davis and I left the camp near Pachuca on July 4, went to Mexico City on July 5, and on July 6 drove east toward Puebla and the volcanic peak of the Cofre de Perote. We made camp in the pines at 8700 feet on the north slope on July 7, and began collecting on July 8. No *P. ocai* were found, although this was supposedly in their range. We moved on July 9 and searched until July 11 for a way to gain access to the western slope of Mt. Orizaba in the vicinity of Chalchicomula. We reached Chalchicomula on July 11 and ascended a track up the mountain to a point eight miles northeast of Chalchicomula, Puebla, at 10,350 feet. This was as far as we could go in the truck and we camped in a sparse stand of pines and firs with a potato field on one side and a wheat field on the other. The snow-capped peak of Orizaba loomed above us and towhees were present.

The following morning we found that we had been robbed of our cooking utensils, tableware, an axe and some food; everything we had left outside the tent and truck was gone! I hunted for two hours and got eight towhees that showed evidence of hybridization between *ocai* and *maculatus*. We then drove down to Chalchicomula and reported the theft to the mayor and the police. We suspected a certain individual who had visited our camp the previous afternoon and we provided his description. At the time I never expected to hear more of this episode, but the sequel is described below under the Mexican trip of 1948.

Late on July 12 we drove back to Mexico City. The next day we bought new utensils and other gear, and on the 14th we drove south to Oaxaca and then to Mitla on the 15th to see the Zapotec ruins. We collected Brown Towhees in this area and then drove back to Oaxaca and took the road to Ixtlán that ascends the east side of the Cerro San Felipe. We made camp in oak woodland at 7400 feet, about 15 miles northeast of Oaxaca, where we found typical *P. maculatus*. We moved higher to 8900 feet and found *P. ocai*. In subsequent years we found both together in this area without any evidence of hybridization.

On July 18 we returned to Mexico City and visited Helmuth Wagner who had collected the specimens that caused me to decide to study the Mexican populations. Wagner also had collected towhees near Pachuca and believed "*macronyx*" and "*maculatus*" to be conspecific. During our discussion about the towhees we debated the status of the towhee populations at Pachuca and elsewhere. Wagner, a tall man, lived in a small apartment with low ceilings



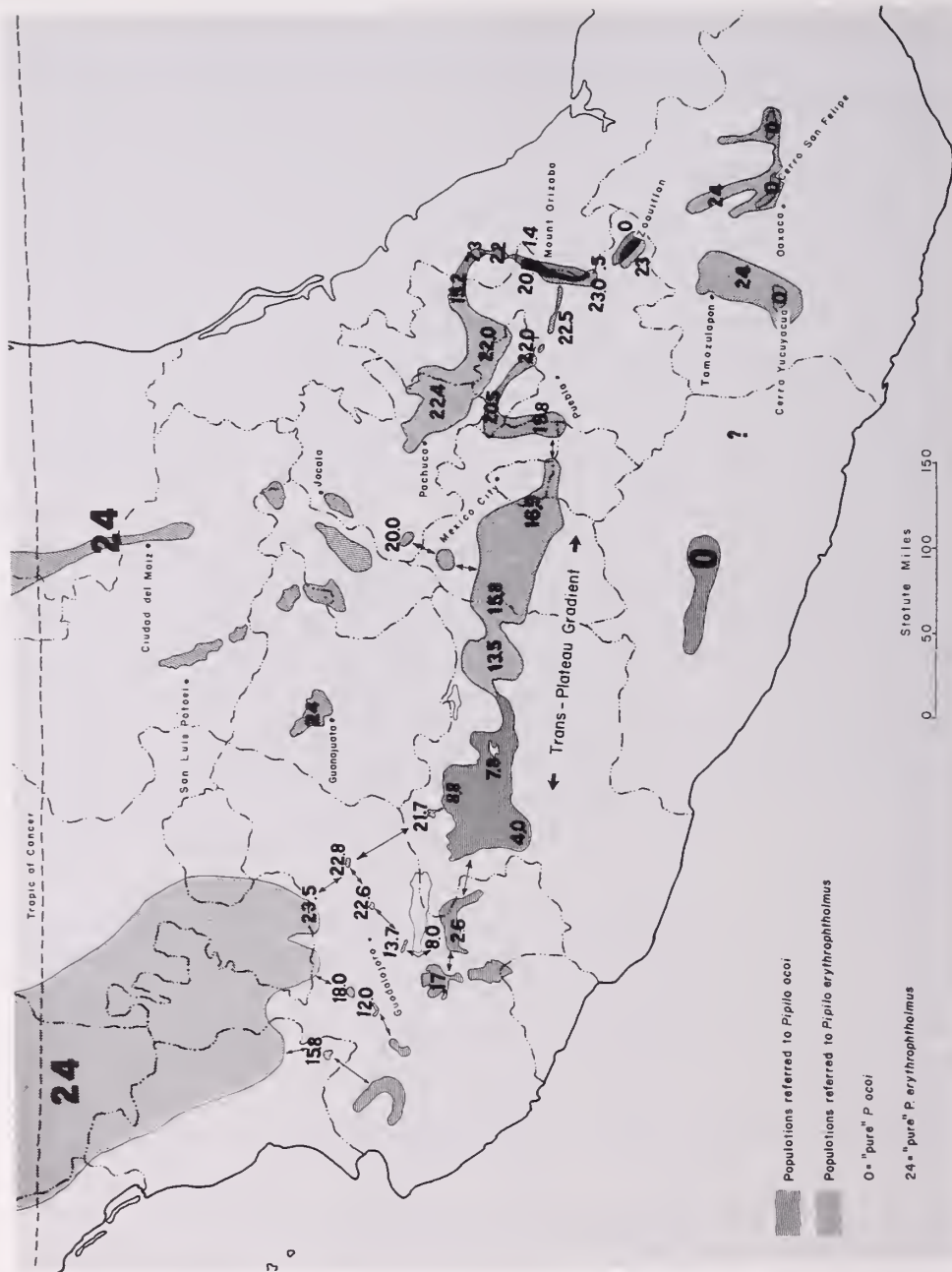
and he walked about as he discoursed on the problem of “subspacemings” (= subspecies). At one point he loudly exclaimed in his German accent: “*Can you tell me what it is a subspaceming? No, you can’t tell me what it is a subspaceming! Erwin Stresemann couldn’t tell me what it is a subspaceming!*” John and I treasured the moment and often used Wagner’s “subspaceming” in our conversations.

On July 19, we drove up into the saddle between Mt. Popocatépetl and Mt. Ixtaccihuatl at about 12,000 feet, then back down to camp at 9700 feet where we collected greenish-plumaged *macronyx*-type towhees the next morning. We then drove south via Cuernavaca and Taxco to Chilpancingo, Guerrero, where we again visited Mr. and Mrs. Wilmot W. Brown at the Hotel Mexico, as we had in 1941. They had been there for nine years and Brown remembered our previous visit, but Mrs. Brown was ill and did not recognize us. W.W. Brown was a well-known professional collector and his beautifully-made specimens are in many museums.

On July 21 we drove to Omilteme, a tiny sawmill town at 7400 feet in the mountains west of Chilpancingo. Omilteme is the type locality for several birds first collected by Mrs. H. H. Smith in the 1880s, including a subspecies (*guerrerensis*) of *P. ocai*, named by A. J. van Rossem in 1938. The type is one of Mrs. Smith’s specimens in the British Museum. The towhees were scarce and we got only two specimens, but Brown told me that he had obtained a good series from Omilteme for Milton S. Ray, a private collector in San Francisco whose collection was to go to the Museum of Vertebrate Zoology. I obtained the information I wanted on voice, habitat, etc. and we returned to Mexico City on July 24.

On July 25 we collected Brown Towhees near Mexico City and visited the Pyramid of the Sun at Teotihuacán. On July 26 we collected Brown and Spotted towhees near Salazar, west of Mexico City. We moved to Temascaltepec on the 27th and obtained permission to camp in a vacant house at 5500 feet near the town. We collected several birds, but no towhees, although *P. macronyx* had been recorded from Temascaltepec in the past century. This is a famous type locality under the name of *Real de Arriba*, where Deppe collected; John and I published a note about it in the *Condor* (48:281-282, 1946).

We left Temascaltepec on July 30 and drove west across the “trans-plateau” highlands on highway CN #4 through Morelia and Quiroga to Zacapu, and on July 31 to Pátzcuaro where we collected Brown and Collared towhees until August 1; on August 2 we drove to Guadalajara. On August 3 we returned south along CN #4 and took a side road that eventually led us to a camp in the Sierra de Tapalpa, 15 miles west of Sayula at 7450 feet. *P. ocai*



were common and we collected here until August 6, when we returned to Guadalajara. On August 7 we began the return trip via San Luis Potosí, collecting Brown Towhees along the way. I had collected only 99 specimens, but they showed that the Mexican towhees presented a complex pattern of variation due to hybridization between *maculatus* and *ocai* in some places, gradients between them in others, and apparent sympatry without interbreeding in Oaxaca.

### 1948

The specimens collected on the 1946 trip to Mexico, and examination of specimens borrowed from other museums, revealed some of the complicated pattern of variation in the Mexican red-eyed towhees and suggested which areas should be sampled to obtain a complete picture. To avoid the heavy rains of summer and to take advantage of the greater amount of song in the spring, I planned a trip beginning in February. On February 16 I left Berkeley with James Basil Bowers and Henry E. Childs, Jr. John Davis generously let me use his panel truck and we drove to Laredo by February 19 and into Mexico on February 20.

On our first night we camped at 4000 feet on the Mesa de Chipinque, 10 miles southwest of Monterrey, and then continued south. On February 23, near El Limón, I shot an Aplomado Falcon that was hit but flew off and dropped into the arid scrub. I retrieved the bird but, when I returned to the truck, I discovered that I had become the host of an enormous number of tiny red ticks (“pinalillas”). I brushed off those I could see on my clothing, but some had already penetrated deeper and were an irritant for several days.

By chance we met a Louisiana State University field party consisting of George Lowery, Bob Newman and his wife, and two students. We had stopped on a ridge crest between Antiguo Morelos and Nuevo Morelos to

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(LEFT) FIGURE 2. DISTRIBUTION AND HYBRID INDEX VALUES FOR RED-EYED TOWHEES IN MEXICO. The “Hybrid Index” is based on six plumage characters: color of the pileum; back spotting; back color; throat color; flank color; tail spots. Each of these was assigned a numerical value from 0 to 4, with 0 indicating that the character is the same as in the pure Collared Towhee (*Pipilo ocai*) and 4 as in the pure Spotted Towhee (*Pipilo erythrophthalmus* = *Pipilo maculatus*). A hybrid index of 2 would then be intermediate between the two extremes. A total hybrid index for each specimen was calculated by adding up the individual scores. Thus a pure Collared Towhee = 0 ( $6 \times 0 = 0$ ), a pure Spotted Towhee = 24 ( $6 \times 4 = 24$ ) while a specimen with individual scores totalling 12 would be considered intermediate between the extremes. The individual scores for the specimens from a single locality were averaged to produce a hybrid index for that population.

look at the view and the LSU group saw my binocular as they drove by and stopped to chat.

From February 24 to 26 we collected 18 Spotted Towhees near Ciudad del Maíz at 5000 feet in San Luis Potosí. We arrived in Mexico City on February 27 and drove west on CN #4 on February 28 to a locality 15 miles east of Zitácuaro, 9500 feet, Michoacán, where towhees were abundant. From March 2 to 4 we collected on the Cerro de San Andrés at 9000 feet, some 20 miles south southeast of Morelia, Michoacán. The towhees occurred from ca. 8500 feet to the top of the mountain at 11,200 feet and most had the rufous crown of *ocai*, although showing the influence of introgression from *maculatus*. This general area, called “Mil Cumbres,” proved to be close to the midpoint of the trans-plateau cline between *maculatus* to the east and *ocai* to the west.

On March 5, we made camp 15 miles east southeast of Morelia at 7300 feet in pine-oak woods, about 28 airline miles from Cerro de San Andrés. Towhees were scarce and wary and we got few specimens. On March 8, we drove to Pátzcuaro and located a party from Cornell University at the Limnological Station on the lakeshore. Ernest P. (“Buck”) Edwards, Paul Martin, and Roger Hurd were collecting in the area. The next day, March 9, all six of us went out on Lake Pátzcuaro in an outboard motorboat.

We went to Guadalajara on March 10 for supplies and to obtain information about the “Sierra de Cuyutlán”, a mountain on the north shore of Lake Chapala. Three specimens in the American Museum of Natural History, collected by A.C. Buller in 1892, were clearly hybrids and suggested that the towhees on this mountain should be of interest. After several false starts, and discovering that the local name for the mountain was Cerro Viejo, we met Señor Agustín Pérez Gómez who provided hospitality (lunch and beer) at his house in Cuyutlán and arranged for pack burros. We left Cuyutlán at 7:00 a.m. on March 12, ascended Cerro Viejo, and camped at 8500 feet near a spring in oak woods with dense undergrowth. Towhees were abundant and we collected three on the way up. We continued to collect on Cerro Viejo until the morning of March 16 and obtained 74 more specimens. The teeming population of towhees on Cerro Viejo proved to be a “hybrid swarm”—no two specimens were identical (see Frontispiece, Figure 1). They ranged widely in color and pattern, but there were no “pure” individuals of either species. Cerro Viejo was like an island in a sea of mesquite-grassland, with *ocai* populations in the highlands to the south, and *maculatus* populations in the Sierra Madre Occidental to the north. Apparently juveniles of both



species had dispersed across the inhospitable lowlands and found suitable habitat on the summit of Cerro Viejo, where they interbred.

We returned to Guadalajara late on March 16. On the 17th and 18th we drove to the coast at San Blas, mainly to see the lowland tropical avifauna. We planned to camp on the beach but the biting “sand flies” caused us to seek a room in town. We found a place to rent in a private house facing the main square, but were allowed to move in only after the room had been cleaned and freshly whitewashed!

That evening we were sitting in the room with the door open, preparing specimens and writing notes when a middle-aged man walked up to the door, looked at the license plate on the truck and at us for a moment, and said, “*Hello there California—you look like you’re from Berkeley*”—and introduced himself as Chester Lamb. It was a wonderful moment; to meet the well-known collector under such circumstances was delightful. Chester had dinner with us and we spent the evening talking about the museum, birds, people, and various other subjects. The following day he came with us in the field. Lamb was collecting for Robert T. Moore and living in a hotel in San Blas.

On March 19 we rented a “*canoa*” and paddled up an *estero* in the mangroves northwest of San Blas. Birds were abundant and we took several specimens. Chester again joined us for dinner, accompanied us into the field the next day, and had dinner with us on March 20 and 21. He agreed to let me go through his catalogs at his home in Irapuato to look for towhee records, and gave me a letter to his wife to let her know that he had given his permission.

We left San Blas on March 22 and spent the night in Guadalajara. On March 23 we drove to Irapuato, Guanajuato, and I obtained the catalogs from Mrs. Lamb. We put up at a hotel and I inspected the 6-inch-thick volumes. They began with No. 17,278, ending on July 5, 1939 with No. 30,143. He then began again with No. 1 and continued to 11,758 and then went back to his original series and began with 41,901 on April 17, 1945. Thus, numbers up to 11,758 were used twice, those between 11,758 and 30,143 were used only once, and there were no numbers between 30,143 to 41,901. The catalogue ended with No. 45,608 on April 8, 1947. Thus, the actual number of specimens Lamb had collected up to April 8, 1947 was 45,608.

On March 24 we drove from Irapuato to a camp 30 miles east of Morelia, 8500 feet, Michoacán, in a stand of pines, firs and oaks. We collected there until March 27, when we moved east on CN #4 to a side road that led to an artificial lake, Lago Sabaneta, and camped at 8000 feet at Sabaneta, six miles

south southwest of Ciudad Hidalgo, Michoacán. We got a few towhees and four *Otus trichopsis* (Whiskered Screech-Owl).

To Mexico City on March 29; on March 30 to Oaxaca, and on the 31st, by the same route that Davis and I took in 1946, to the area east of Cerro San Felipe where we made camp at 9000 feet, the highest point on the road at La Cumbre, five miles northeast of Cerro San Felipe, Oaxaca. We collected here until April 5, obtaining a good series of both species, often literally under the same bush, and found no evidence of hybridization. So in Oaxaca we had found sympatry, on Cerro Viejo a hybrid swarm, and across the trans-plateau mountains a gradient from one species to the other. More was yet to come.

We left La Cumbre on April 5 and drove southeast on the Pan-American Highway to Tehuantepec City where we spent a miserable, noisy, hot, mosquito-plagued night at the misnamed Hotel Oasis. On April 6, we continued across the Isthmus of Tehuantepec through Juchitán, Zanatepec and Tapanatepec to Tuxtla Gutierrez. Much of the road was unpaved and it took us 8 hours to go 186 miles. The ascent to the Chiapas highlands began as a series of switchbacks that rose 4750 feet in the first 20 miles, and to 7800 feet after 35 miles. In the late afternoon, 239 road miles from Tehuantepec, we arrived at San Cristóbal de las Casas where we bought some souvenirs including colorful hand-woven fabrics from Guatemala. We returned along the road to a point five miles northwest of San Cristóbal and spent the night on a side road. The next day we found a campsite nearby in a pine-oak woodland about four airline miles northwest of San Cristóbal. I had developed a painful infection in my left thigh and stayed in camp to apply hot compresses to it.

Spotted Towhees (subspecies *chiapensis*) were abundant; there are no *ocai* south of the Isthmus of Tehuantepec. On April 8 I collected near the camp and encountered a local landowner, who introduced himself as Rodolfo. I asked about the local animals and he told me that wolves were common, as well as coyotes, deer and other mammals. I asked about bats and he offered to guide me to a bat cave. As we walked, he told me that during the 1914 revolution a family of wealthy landowners (*hacendados*) had hidden in the cave and that all had died of hunger. I doubted the story until he showed me human bones in the cave, including an unmistakable human tibia. He said that the skulls were buried in a pile of rocks on the cave floor.

We collected until April 9. My infected leg became progressively more painful and developed into a boil and I decided to return to Oaxaca for medical help. We broke camp late in the afternoon in order to cross the hot Isthmus during the night. One of our tires had a slow leak that had to be

pumped up every 30 miles, so progress was slow. I had fixed a bed in the back of the truck so I could lie down and reduce the pressure on my leg. About ten miles east of Tapanatepec, at about 2 a.m., we came upon a Baird's Tapir in the middle of the road. It made no attempt to flee, but moved back and forth across the road as it ambled along in the headlights. Several times it turned and came toward the truck, once coming close alongside when we stopped. We could see that it was a male with white-tipped ears, a white spot at the base of each ear, three hind toes and a brownish iris. The movements of his proboscis as he sniffed the air were fascinating. We followed the tapir for about ten minutes when—in spite of my painful leg, I couldn't resist the temptation—I got out of the truck, ran up behind the tapir and slapped him on the rump so hard my hand stung for several minutes. Off he went down the road at full speed, then up the hill into the brush and we could hear him crashing through the vegetation. Later we saw two Coatimundis run across the road.

We drove all night and arrived in Oaxaca at 2 p.m. on April 10. While Bowers and Childs got the tube repaired, I found a doctor and had my boil lanced (and it hurt!). He extracted a long core and gave me some penicillin ointment; the pain subsided and the deep hole in my thigh soon healed. We left Oaxaca the next day and drove to Mexico City, where we spent April 12 replenishing supplies. On April 13 we drove via Pachuca, Tulancingo and Villa Juárez to Tuxpam on the shore of the Caribbean to survey the cross-section of the mountains and see the eastern tropical lowlands.

On April 14 we returned to the highlands in a heavy rain that impeded our work so we returned to Mexico City and then back to Puebla. On the 16th we drove to Chalchicomula on the west slope of Mt. Orizaba, near the Ojo de Agua area where Davis and I had camped when we were robbed in 1946. In Chalchicomula, I went to the Police Station, explained to the officer on duty about the 1946 robbery, and asked for some guarantee of security. He promised that he would see to our safety, if necessary even taking an armed guard with us up the mountain! We had to wait until the next day to talk to the Mayor and the Chief of Police, so we found a hotel room. The Mayor's secretary arrived the next morning and, after hearing my story and examining our documents (permits, passport, etc.), he wrote a letter to the *Juez de la Paz* (Justice of the Peace) of the Ojo de Agua area charging him with our security.

We ascended to the village of Ojo de Agua on the same road that Davis and I had used in 1946 and located *Señor* Juliano Serrano, the *Juez de la Paz*. He laboriously spelled out the letter and looked puzzled, so I explained that we wanted some guarantee of security against another theft in the night. He

assured me that there was no danger; I repeated that we had been robbed. After various delays and false starts, I decided to camp near the spot where Davis and I had stayed in 1946. We ground our way in low gear up the slope to 10,500 feet and set up about 400 yards from the old site. Our position was at a turn in the foot path used by woodcutters and snow gatherers. Word of our contact with the police and *Señor* Serrano had obviously spread as foot traffic avoided us by cutting across a field well away from our camp. One day three men visited us and we talked for an hour. They were cordial, so I told them of the 1946 robbery, which they knew about, and they told me that the man we had described had been sent to jail but now was free. They also said that they didn't think he was guilty but was used as a scapegoat! I asked where he was now and was told that he was still in the neighborhood, which made me wonder whether we might be confronted by an angry, but innocent man who had served time because of our charges!

On the slope of Mt. Orizaba, *ocai* tends to occur mainly in the undergrowth of the fir forest between 10,000 and 11,000 feet, and *maculatus* is most abundant in brushy thickets below ca. 10,000 feet. At our location at 10,350 feet, towhees were abundant with both "pure" species and occasional hybrids present. We collected 86 specimens and I studied a transect in which both species seemed to be distributed almost evenly throughout an area of 850 by 1100 feet, with five pairs of *maculatus* and four of *ocai*. Both species often occurred in the same patch of brush. From both trips, plus specimens in other museums, I assembled 109 specimens from the west slope of Mt. Orizaba. Of these, 13 showed evidence of hybridization, six were predominantly *maculatus* and seven predominantly *ocai*. The "pure" adults from the overlap zone were about evenly divided between the two species.

This camp was unpleasant because the nights were below freezing, the days cold, and a constant wind blew dust from the plowed fields into our tent and equipment. We left the area on April 20 at 6 p.m. and drove to Mexico City. On April 21 we drove north to Valles, on the 22nd to Linares and west toward Galeana to a point eight miles southeast of Galeana, Nuevo Leon, at 6000 feet. We collected 22 *maculatus* on the 22nd and 23rd, including the type specimen of *P. m. orientalis*, which, in 1950, I described as a new subspecies. We had the 22 towhee specimens prepared by noon on April 23, so we broke camp and drove to Laredo, Texas, passed through U.S. Customs and spent the night in a motel. From April 24 to 26 we drove non-stop to Berkeley, taking turns driving and napping on a bed fixed up in back on top of the load.



During the summer and early fall of 1948, I wrote my doctoral thesis: "Species formation in the red-eyed towhees of Mexico" (Univ. Calif. Publ. Zool. 50:109-194, 1950). The map, Fig. 2, is an illustration from the published paper.

In the spring or summer of 1949, Alden Miller contacted me and asked if I had a copy of the thesis manuscript. Fortunately, I did. It turned out that in February, the 118 Ph.D. theses submitted in the fall of 1948 had been destroyed and would have to be retyped by the Graduate School. The San Francisco Chronicle published the following on Aug. 7, 1949 (my 32nd birthday):

### **Berkeley**

*Tch Tch*

A tragic loss was revealed to the world last week: "Bionomics of Tomato and Tobacco Hornworms" and "Drainage of Mexico City During the Colonial Period" and "Species Formation in Mexican Red-eyed Towhees" and 115 other University of California post-graduate theses. En route, last February, from the campus storehouse to the University Library for cataloguing and use as general reference material, the weighty tomes ended up at the city dump. There they were burned. No one could understand how it happened. The loss became known last week but university spokesmen were reluctant to comment. An anonymous official wailed: "It was a terrible mistake."

### **1950**

In 1950 I was a member of the faculty of the Biology Department of San Jose State College in San Jose, California. The Mexican towhee problem still had loose ends and I decided to go again to Mexico in the summer of 1950. I obtained a grant of \$1050 from the American Philosophical Society and used \$500 of it to buy a war-surplus Army ambulance, which was a four-wheel drive Dodge "Power Wagon." The vehicle was in fair condition, except for the huge tires—and they were to become a major problem. Three San Jose State College students, Andrew C. Browne, Eugene A. Olson and Raymond E. Williams, were enlisted as unpaid assistants. They drove the Dodge Power Wagon to Guadalajara and my wife, Frances, our two-year old daughter,

Barbara, and I used our Pontiac sedan. The \$550 remaining from the American Philosophical Society grant covered most of the expenses for the truck and field work; all other costs came from our savings.

We arrived in Guadalajara on July 3 and rented a small suburban house for Fran and Barbara, and to use as a headquarters. The boys and I left Guadalajara in the Dodge on July 5 and drove south 22 miles to a road leading to Autlán, and then, via various roads, to the vicinity of Cocula and finally up a rough track on the west slope of Cerro Tecolote, 6800 feet, five miles southwest of Cocula, Jalisco. No towhees were found, so we returned to Guadalajara and, among other things, got a tire recapped—the first of many tire problems. On July 8 we drove west on the road to Tequila and to Las Norias, where we left the road and proceeded through gates and fences to a village, Sandoval, 3.3 miles from Las Norias. I obtained four burros and a packer and we climbed Cerro Tequila in the afternoon and camped in pine-oak-madrone woods at 6600 feet, seven miles south of Tequila, Jalisco. We collected on Cerro Tequila until July 15 and obtained 69 towhees. The plumages of the population on Cerro Tequila showed the effects of hybridization with an average hybrid index score of 18 on a scale of 0 to 24 with 0 indicating pure *ocoi*, 24 pure *maculatus*, and a score of 12 indicating specimens with averaged plumage characters at the midpoint between the two species.

On July 18, we went to Ameca, 50 miles west of Guadalajara, then, via La Vega and Ahualulco de Mercado, to the north base of the Sierra de Ameca. On July 19, with three pack mules and a packer, we ascended into the Sierra de Ameca and camped at 5650 feet, six miles north of Ameca, Jalisco. We collected there until July 24 and by exceptionally hard work obtained 18 towhees which averaged 12.0 on the hybrid index. Fig. 2 shows the localities and average hybrid indexes of the localities in southwestern Mexico.

We spent July 26 on the road to Tepic, Nayarit, looking for a way to ascend into the mountains at the southern end of the Sierra Madre Occidental. We were unsuccessful although we tried at various places. After a brief visit to San Blas on the coast so the boys could see some of the lowland tropical birds, we returned to Guadalajara on July 28.

Ray Williams was a Marine reservist and on July 29 he received orders to return to the U.S. and report for active duty with his unit (later, he spent some time in Korea but returned safely and I saw him again in 1953). I took him to the airport early on July 30 and then Olson, Browne and I drove south from Guadalajara to San Luis Soyatlán, a village on the southwest

shore of Lake Chapala at the base of Cerro García. I hired a woodcutter and his four burros to take us up Cerro García. We left San Luis at 3 p.m. and climbed steeply to a ridge east of the summit where we camped in oak-madrone woods at 8500 feet, 32 miles south of Guadalajara. Towhees were abundant and we had collected 58 by August 2. The average hybrid index was 8.0, thus on the *ocai* side of the midpoint, as we had expected from the location of Cerro García relative to other known populations. By this time, we had begun to predict the average hybrid index of the next locality before we collected there and we bet a bottle of rum on the predictions. Rum-and-Coca-Cola was our only libation and my experience proved useful in winning most of the bets.

A remarkable event occurred at this camp. While hunting towhees one morning, I gave my imitation of a Pygmy Owl, which often excites interest in other birds. I was surprised to receive a reply from a real Pygmy Owl and moved slowly toward the sound, calling at intervals. Finally I saw the bird, fired and it fell as Olson, from the other side of the hill, shouted, "I got it!" He had been approaching the bird from the opposite direction and we had fired simultaneously! When the bird was skinned we found both #10 and #12 pellets in the specimen—we had used different sized shot and both had hit the bird. We returned to Guadalajara on August 3.

While on Cerro García I had developed a severe backache, so I went to a doctor in Guadalajara who diagnosed it as *reumatismo*. I didn't believe it—I was only 33—so I found a second doctor who also said *reumatismo*. Now I believed it! Too much rain and cold weather. He prescribed some pills and Baume Bengue, and the pain subsided.

On August 5, we drove south and southeast from Guadalajara to Jiquilpan and then 30 miles south of Jiquilpan to Mazamitla. We made camp four miles west of Mazamitla, Jalisco, at 6800 feet in pine-oak woods. Towhees were not common but we got 29 with an average hybrid index of 2.3, close to pure *ocai*.

On August 8, we went 47 miles northeast of Guadalajara to Tepatitlán, where a mountain called Cerro Gordo is situated 13 miles east southeast of Tepatitlán. We eventually found a rocky road up Cerro Gordo and were able to drive to a campsite at 8000 feet in oak woodland. Towhees were abundant and we obtained 42 specimens with an average hybrid index of 22.8, thus close to pure *maculatus*. From the 9200-foot summit of Cerro Gordo, I could see Cerro Viejo, Cerro García and the mountains of the Sierra del Tigre at the south end of the Sierra Madre Occidental. The mountains of central

Michoacán were visible to the southeast. Other oak-covered hills and ridges were visible, providing dispersal pathways and breeding habitat for towhees between the higher mountains.

On August 10 we drove northwest via Yahualica and made camp on the Mesa de los Puercos, 12 miles west of Yahualica, Jalisco, at 8000 feet in pine-oak-madrone woodland. We could see Cerro Viejo and Cerro García to the south, and Cerro Tequila, Sierra de Ameca and Cerro Gordo. We collected 14 towhees with an average hybrid index of 23.5 or nearly pure *maculatus*. *Ocai* influence was indicated only by chestnut shaft streaks in the crown feathers and/or a greenish cast in the dorsal plumage of some specimens.

We returned to Guadalajara on August 12 and on the 14th drove east to Zapotlanejo and, via various roads, to La Paz, a village at the base of Cerro Grande. Here we obtained horses and burros and on August 15 we ascended Cerro Grande to a campsite at 7600 feet, 18 miles east southeast of Guadalajara in oaks and thorn scrub. Towhees were abundant and we had collected 36 specimens by August 17. The average hybrid index was 22.6. We could see ca. 130 miles from the summit, including all of the mountains we had visited.

On August 19 we investigated an area southwest of Guadalajara, but found no towhees. The next day we drove east on the Mexico City road to Zamora, then northeast via muddy, poor roads searching for a way to ascend a small range of hills; finally, we had to head back to Zamora, got bogged down in deep mud for four hours and had a flat tire. A day later, after the fifth patch was applied to the bad tire, we drove southeast on the main highway, turned north near Carapán to Purépero and on to Changuitiro, an agrarian community at the base of a mountain called El Fraile. I arranged for saddle horses and burros and on August 22 we ascended El Fraile with an entourage of about ten persons. Even more people had originally intended to come along as they thought we must be prospecting, not for birds, but for gold. When I showed them my collecting permit shortly before departure, many lost interest. We managed to get the tent up just before a rainstorm hit. All of the men and boys crowded inside and, to show them what we were doing, I prepared as specimens the two towhees we had collected on the way up. The locality was Cerro El Fraile at 8200 feet, 14 miles northeast of Zamora, Michoacán. Towhees were common in the brushy understory of the oak-madrone woods and we obtained 16 with an average hybrid index of 21.7. Some were nearly pure *maculatus*.

We left El Fraile on August 24 and proceeded to a camp at Las Joyas, 7700 feet, 12 miles west of Zacapu, Michoacán. This was only 21 airline miles



southeast of El Fraile, but the average hybrid index of our 12 specimens was 8.8. This proved to be the steepest gradient in the entire study. This abrupt change was correlated with a change in vegetation and rainfall pattern. El Fraile is a comparatively arid locality of oak-madrone woods, and nopal cactus occurred at the summit. At Las Joyas, pines were dominant with few oaks and madrones, but with alder thickets and no cactus. Near El Fraile the corn crop was stunted from lack of rain; at Las Joyas the corn was high and the grass was green. This pattern reflects the topography and prevailing wind direction. The rains come from the south and are intercepted by the mountains in which Las Joyas is located; El Fraile is in the rain shadow of these southern mountains. Thus, the character gradient seems to be due to the combination of distance and ecology; *maculatus* occurs mainly in relatively dry oak woodland and chaparral, *ocai* in moist coniferous forest.

We left Guadalajara on August 28 with Ray Alcorn and his two Mexican assistants. I had contacted Ray in Guadalajara where he was living while collecting mammals for E. Raymond Hall of the University of Kansas. We had planned a joint trip to a mountain range south of Ixtlán del Río, northwest of Guadalajara and arranged for pack burros and saddle horses. On August 29, we left Ixtlán and began the ascent of a mountain called El Faro. I had made it clear to the packer that we wanted to go to the summit, or close to it, but at ca. 6000 feet, he stopped and began to unload the burros. I reminded him of our agreement and a vigorous argument in Spanish developed. The packer was sullen and argued that it was too late and that he had to return home. I offered more money and threatened to report him to the “authorities”—though I had little idea of what “they” might do. Finally he agreed to proceed and we went on up the mountain. Ray had understood little of the argument, but he could see and hear that it was heated. Afterwards, Ray told me that the packer, who had been facing me, had his hands behind him on a large knife in his belt. Ray had a .38 revolver and he told me that he was prepared to shoot if the packer had drawn the knife! This frightened me more than the argument, which I knew was mainly bluff on both sides. We made camp near the summit of El Faro at 6800 feet, six miles south of Ixtlán del Río, Nayarit. We collected there until September 2 and got 31 towhees with an average hybrid index of 15.8.

I had wanted to investigate the Teziutlán area north of the Cofre de Perote on the eastern edge of the plateau, which Bowers, Childs and I had traversed in 1948. I decided to go to Teziutlán in our Pontiac with Fran and Barbara, while Browne and Olson went with Ray Alcorn to some localities west of Guadalajara.

We left Guadalajara on September 5 and drove to Mexico City with a tourist stop in Pátzcuaro, arriving at the Hotel Virreynal in Teziutlán on September 7. I collected towhees for the next two days at 7300 feet, three miles west of Teziutlán, Puebla, and got eleven specimens. All were hybrids with an average index of 13.0. We drove south to Tehuacán to examine the topography and vegetation, then northeast to Puerto Morelos, the high point on the highway between Tehuacán, Puebla and Orizaba, Vera Cruz. From September 9 to 11, I collected in the region near Puerto Morelos, near the Puebla-Vera Cruz border, and obtained 20 specimens, of which 13 were pure, or nearly pure, *maculatus*, with an average index of 23.4, and 6 were pure, one nearly pure, *ocai*, with an index of 0.14. Thus, there was evidence of occasional hybridization.

Back in Mexico City, we visited the *Museo Nacional de Historia Natural* and found a hybrid from Zoquitlán, Puebla, and a pure Spotted Towhee mounted on the same perch and labeled as male and female! I also visited Rafael Martín del Campo at the *Instituto de Biología*, and met other biologists.

From Mexico City we drove north on September 13 through Toluca, then, via Querétaro and Celaya, to Irapuato, where we visited Chester Lamb, and then on to Guadalajara.

September 14 was spent packing and getting the Dodge tires repaired, including one recapped. The following morning we found that the tire was unsatisfactory and had to have it redone. When we finally began the return trip, I drove ahead in the Pontiac. We were only a few miles from Guadalajara, when I realized that the truck was not in sight behind. After waiting for a while, I turned around and found the Dodge, a few miles back, sitting on the roadside with the 10-foot-long recap draped across its hood! It had peeled off and the boys didn't dare to drive on the bare surface of the tire. We returned to Guadalajara and a new recap was accomplished which lasted to Laredo, where we had to buy a new tire to get home. We had nearly run out of money and had to telegraph home for the price of the tire.

#### 1954

In 1953 I moved to Cornell University to join the faculty of the Department of Conservation. The Mexican towhees still presented questions. I could not go back myself but several undergraduates were eager to go to Mexico. Walter Bock, Lester Short, Fred Sibley, David Wingate, Thomas Savage and Ralph Long formed two parties and worked in the eastern plateau region in Hidalgo, Puebla, Vera Cruz and Tlaxcala, and again in the Oaxaca areas where both species occur in sympatry without hybridizing. 338 specimens

were added to the collection and the results are summarized in Fig. 2, originally published in Sibley and West 1958.

### 1958

In 1958, Fred Sibley led a party of three, including Roger Clapp and S. Craig Smith, to obtain additional material from the eastern and southeastern plateau region in Tlaxcala on Mount Malinche, the region between Mount Orizaba and the Cofre de Perote, and on Cerro Yucuyacua in Oaxaca. 215 specimens were added to the evidence and the two species were found to be sympatric and without hybridization on Mt. Yucuyacua. The results were published in Sibley, C. and F. Sibley (1964).

### Summary

The extensive and complex pattern of hybridization in Mexico between the morphologically distinct species, *Pipilo ocai* and *Pipilo maculatus* (formerly *erythrophthalmus*), was studied in the field and from specimens. Pure *ocai* is found alone in Guerrero in the Sierra Madre del Sur. In Oaxaca, where elevational overlap occurs between the two species, no hybrids were found during three periods of field study. In eastern Puebla, occasional hybridization occurs on Mt. Orizaba and the incidence of hybridization increases north to west Veracruz. From Hidalgo south to México and west to Michoacán, there is a hybrid cline from *maculatus*-like birds in the east to *ocai*-like birds in the west. The approximate midpoint is near Morelia. Isolated mountain-top hybrid populations range from nearly pure *ocai* in Colima to nearly pure *maculatus* in northern Jalisco. On Cerro Viejo, a mountain on the north shore of Lake Chapala, only hybrids occur and similar populations are present on other isolated mountains in this region. Pure *maculatus* populations are found north of the southern Sierra Madre Occidental and in Chiapas and Guatemala where *ocai* does not occur.

### Epilogue

At most of the localities we studied from 1946 to 1954, towhees were one of the most abundant species, often the most abundant. At all localities, oak woodland was being cut for firewood or charcoal and the burros we rented were those of the *leñaderos*—the firewood gatherers—who were cutting the trees. Today, it is likely that most of the oaks are gone, but brush composed of several woody species is the prime habitat for these birds and I suspect that their populations are as large as, or larger than, before. This may increase

their ranges and bring about additional contacts, so the current situation may have changed and there may be new questions. Of special interest are the localities where the two species occurred in sympatry without interbreeding. Is the situation the same today? Have the “hybrid indexes” that I calculated changed because the patterns of gene flow have changed as the habitat has been modified? Is the summit of Cerro Viejo still the site of a “teeming population” in which no two individuals are exactly alike?

These, and related questions, are relevant to the “Species Problem”. Helmut Wagner declared that even Erwin Stresemann was unable to define a subspecies and the debates about the boundaries of species and subspecies are as vigorous today as ever in the past. We now have several competing species concepts. The Biological Species Concept (BSC), supported by Ernst Mayr and many others, defines species as “populations that are interbreeding or *potentially can interbreed*, and which are reproductively isolated from other such groups by reproductive isolating mechanisms.” The Mexican towhees are difficult to fit into this definition—they interbreed freely in some places, but are reproductively isolated in others. Are they one species or two? I opted for two because of the areas where they are sympatric. Others may consider them to be subspecies of a single species; if so, they must explain the sympatric and morphologically distinct “subspecies” in Oaxaca. The word “potentially” in the BSC presents another problem; how does one decide whether two allopatric populations are “potentially” able to interbreed? The decision to “lump” allopatric populations into the same species thus requires a guess based on a subjective evaluation of similarities and differences.

Based on the BSC, Ernst Mayr and Dean Amadon (1951) counted 8,590 species of birds in the world and 8,600 is often cited as “the number of species of living birds”. Richard Bowdler Sharpe, curator of birds in the British Museum during the latter 1800’s and early 1900’s, did not accept the subspecies concept; what others were calling subspecies, Sharpe (1909) called species and used only binomials. With this concept he listed 18,939 “species”. A similar number might be attained by the Phylogenetic Species Concept (PSC) (see Zink and McKittrick, 1995) which considers any population to be a species if the members are “diagnosably different”. There are several versions of the PSC, but they tend to include the idea that allopatric populations are probably separate species. The Recognition Species Concept (RSC) (Paterson, 1985) defines species as “the largest cluster of individuals that share a specific mate recognition system.” There are other species definitions which are reviewed by Zink and McKittrick (1995) and citations therein.



The Mexican towhees may include examples of all of the above. They presumably remain separate in Oaxaca because each uses the RSC to distinguish their own species from the other species living in the same area. Where they hybridize at a low level the isolating mechanisms have broken down to some degree and where the “hybrid swarms” occur they are behaving as a single species. This seems to defy any definition of “species” but it demonstrates that the process of speciation is gradual and dependent on, among other factors, ecological conditions. The towhee habitats in Mexico have themselves been “hybridized” by human activities. The cutting of trees has extended the brushy habitat favored by both species and brought them into contact at more places. This alteration began several centuries ago and it continues. The initial breakdown of reproductive isolation probably has occurred several times where one species is abundant and the other rare, leading to the formation of mixed pairs when individuals of the rare species cannot find a conspecific mate. These species are closely related; only closely-related organisms can produce viable offspring capable of reproduction. This is what has occurred on Cerro Viejo and among the other hybrid populations of Mexican towhees.

As organisms evolve, they diverge genetically as a function of time. Thus, allopatric populations derived from a common ancestor can diverge genetically but retain similar or identical plumages, calls and songs. Under the BSC they will be treated as subspecies of a single species; under the PSC they are likely to be viewed as separate species, providing that some “diagnosable differences” can be detected. Conversely, as the Mexican towhees demonstrate, there can be substantial divergence in plumages, size and vocalizations, but reproductive compatibility is retained.

I favor a modification of the PSC that views allopatric populations as more likely to be separate species than to be subspecies of a single species. Sedentary populations separated from nearest relatives by barriers of unsuitable habitat are certain to diverge genetically. If they have not yet attained reproductive isolation, they will do so if isolation persists, and the most parsimonious assumption is that it will continue. This replaces one guess with another, but it avoids the subjective evaluation of similarities and differences. The application of this Allopatric Species Concept (ASC) has been a factor in producing a world species count of 9,946+ (Sibley 1996). I expect the number to continue to rise at least to 10,000 within the next year. Most of the additional species have been proposed by authors who present evidence in support of the recognition of allopatric subspecies as full species.

There have also been a substantial number of new species discovered for the first time, especially in South America and central Asia.

If you go to the State of Oaxaca in Mexico, drive up the road toward Ixtlán that takes off to the northeast just south of the city of Oaxaca. Stop at the tiny village of La Cumbre and look for the two species of red-eyed towhees in the adjacent brushy cover. I know they are still there because others have looked and have seen them. The map (Fig. 2) will suggest places to look for the hybrids. *Buena suerte*.

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# *A Field Study of the Golden-Winged Warbler in the Pequannock Watershed*

Robert L. Scully

**F**IELD OBSERVATIONS OVER recent years have shown that both the Golden-winged Warbler, *Vermivora chrysoptera*, and the Blue-winged Warbler, *Vermivora pinus*, have extended their ranges northward. This has resulted in the Blue-winged Warbler penetrating into areas formerly occupied only by the Golden-winged Warbler. This process has been described to the north of the present study area in *The Atlas of the Breeding Birds of New York and The Ontario Breeding Bird Atlas*. Where the ranges of the two species overlap, the Blue-winged Warbler has proved to be 'dominant,' displacing the Golden-winged Warbler from parts of its former range, and there has been speculation that the Golden-winged Warbler may eventually be displaced or absorbed through interbreeding (Gill 1980).

The breeding range of the Golden-winged Warbler includes the northwestern corner of New Jersey and a survey was performed during the years 1986 through 1988 in a limited area within this region to determine the status of the Golden-winged Warbler and to serve as a point of comparison for future observations.

## **Purpose**

The purpose of this study was to determine the present status of the Golden-winged Warbler along a section of Route 515 in Sussex County, New Jersey. A 5.5 mile segment of Route 515 running from the junction of Route 515 and Route 23 in Stockholm, north along Route 515 toward the town of Vernon, was chosen for the study. The approximate location in New Jersey is shown in Figure 1. The area lies within the Pequannock Watershed, which is owned by the city of Newark.

Previous breeding bird surveys have found both Golden-winged and Blue-winged Warblers in the woodlands along this section of Route 515. Although no specific numbers were given, Kane and Marx (1972) found



FIGURE 1. Location of Study, Sussex County, New Jersey.

Golden-winged and Blue-winged Warblers to be “Common in field succession and open, second-growth areas along Route 515....”. Later surveys by Bacinski (1980, 1983) found one to two Golden-winged and Blue-winged Warblers along this stretch of Route 515 in 1978, 1979 and 1980.

### **Method**

This field study was limited primarily to weekends. My original intention was to perform the survey for a single year. In the process of growth into the present three-year study, a somewhat different approach was used in each of the three years. In the first year, when my knowledge of the area was limited, I chose six specific sites within the 5.5 mile length (Fig. 2). These sites were chosen on the basis of apparently favorable habitat, previous observations and convenience of access. They varied in size from about 2.5 acres to 10 acres. Field trips were made from late April through mid-July. The sites were visited an average of ten times each. After May 10, when Golden-winged and Blue-winged Warblers had arrived in numbers, an average of about fifty minutes were spent at each site on a given field trip; not all sites were visited on each field trip.

In the second year, I performed a more intensive study of one of these sites (#3). This site was visited fourteen times between May 13 and June 27. An average of one hour and fifty minutes was spent at this site per visit. Some of the sites from the previous year were covered, as well as some additional sites not covered in the previous year but within the 5.5 mile segment of Route 515.

In the third year of the survey, I extended the coverage to include as much favorable habitat as possible along Route 515. Coverage was less intensive than in either of the previous two years, since a larger area was included. Nine field trips were made from May 8 through June 26. Approximately five hours were spent on each trip.

### **Description of the Area**

The study area is located along the eastern border of Sussex County in northern New Jersey at the approximate latitude 41° 07' N and approximate longitude 74° 31' W. Elevation varies between 1000 and 1300 feet above sea level.

Geologically the area lies in the Highlands Province of New Jersey, underlain by granite and gneiss and forming a hilly upland with valleys. This is mainly a deciduous forest dominated by sugar maples, oaks, white ash, shagbark hickory, yellow poplar and black locust, with occasional stands of



Norway spruce, white pine, red pine, and hemlock. Many of the evergreen stands are the result of plantings.

Due to the hilly nature of the study area, low points are often wet and the valleys between the ridges often contain small streams draining the higher hillsides. In the study area this drainage is directed to the Pequannock River which flows in a north-to-south direction, roughly parallel to Route 515, for about six miles from its origin in Vernon to the intersection of Route 515 and Route 23. The Pequannock River crosses Route 515 at three locations within this six miles. From Route 23, the river flows about three miles southeast to the Oak Ridge reservoir.

Along the river itself and the streams that feed into it, there are numerous swamps ranging in size from small openings in the forest to over ten acres. There are also several locations along the river where beavers are creating ponds and causing adjacent low-lying land to flood. These swamps constitute most of the open area within the study boundaries; there are only two locations that can be characterized as 'oldfield,' dry fields in early stages of succession.

The swamps invariably contain clumps of sedge (*Carex stricta*) and skunk cabbage. In some cases they are relatively open, with little understory, and are dominated by young red maples. In other cases, they are dominated by dense growths of speckled alder. Other plants include quaking aspen, gray birch, tamarack, arrowwood, silky and red osier dogwood, joe-pye weed and goldenrod. Moccasin flower and iris add a touch of color in May and June.

### Criteria

Since the status of the Golden-winged Warbler may depend on the effects of competition with the Blue-winged Warbler, the first task was to determine the abundance of each species and the ratio of Golden-winged Warblers to Blue-winged Warblers. Abundance was determined by the presence of singing males. At each one of the sites, the location of singing males was noted and, over the span of a few visits, it was possible to determine the basic outlines of territories within each site. Simultaneous singing of different birds was relied upon as much as possible to help determine number of birds and territory boundaries. An effort was made to track down all singing males heard within the study area since it is known that hybrids may sing either Golden-wing or Blue-wing songs.

From an ecological point of view, an important issue was whether both species were utilizing the same habitat in this watershed. Related to this was the question of whether males or pairs of the two species would tolerate an

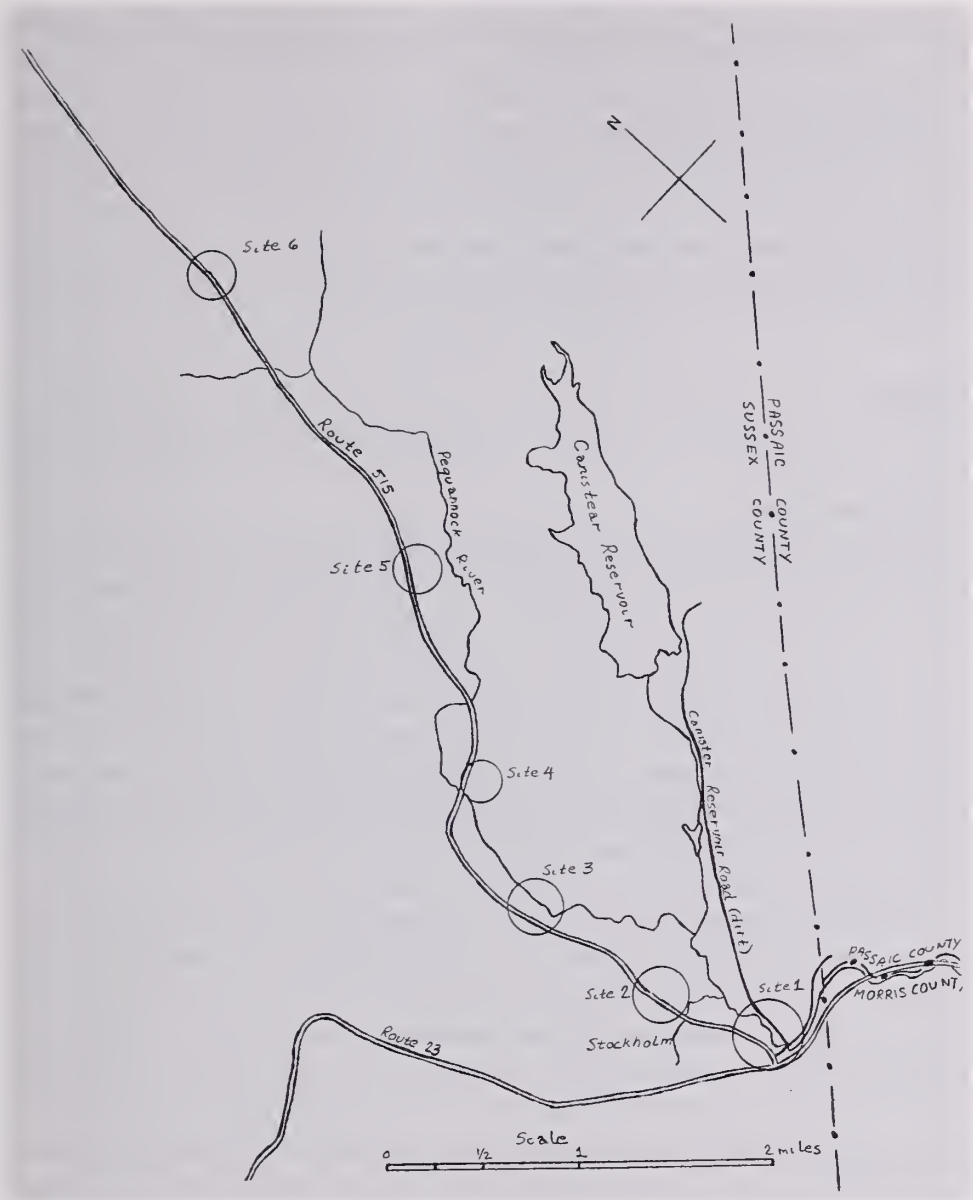


FIGURE 2. Study Sites on 5.5 Mile Segment of Route 515.

overlap in territory as described by Ficken and Ficken (1968) and Murray and Gill (1976). Therefore, I noted any interactions between the two species that could be considered aggressive or 'agonistic' such as one bird chasing another.

Lastly, an effort was made to determine the species identity of mated pairs. This was done in two ways as the breeding season progressed. Searches were conducted, first of all, to find the adults at the nest and, secondly, for out-of-nest broods. The last-named was accomplished by listening for the distinctive call notes used between the adult and young birds to locate each other when the adult bird returns with food.

## Results

Since the survey varied in approach in each of the three years, the results below are given separately for each year. However, some general observations are in order.

Within the study area, Golden-winged Warblers consistently selected swampy areas as habitats of preference. Many of these swamps were bordered by tall deciduous or evergreen trees from which the birds would sing; even in the middle of the large alder swamps, there would usually be a few red maples that would also serve this purpose. The two dry fields within the study area were not utilized by Golden-winged Warblers. Blue-winged Warbler was found in the same swampy areas but was also well represented in the oldfield habitat. The swampy areas were also utilized by Alder Flycatcher (*Empidonax alnorum*), Swamp Sparrow (*Melospiza georgiana*), Common Yellow-throat (*Geothlypis trichas*), and Veery (*Catharus fuscescens*).

Although exact arrival dates were not determined, singing males of both species were present in good numbers by the weekend of May 8-10. Song seemed to peak in the last week of May and the first week of June. The earliest bird observed singing was a Blue-winged Warbler on May 3, and the latest singing bird was a Golden-winged Warbler on July 3. In the course of the three years, three nests of each species were found. Five of these nests were in clumps of sedge with skunk cabbage, young alder or arrowwood shoots providing cover; and one was placed on the ground under a skunk cabbage. The type and placement of the nests were similar for the two species. For the four nests found with eggs, hatching occurred during the first week of June. Over the three-year period, nests or out-of-nest broods of both species were found in five of the original six sites. Sixteen male-female pairs were observed over the study period. Of these, only one was a mixed pair consisting of a male Golden-winged Warbler and a female Blue-winged Warbler.



## 1986

Altogether, seventeen Golden-winged Warbler and sixteen Blue-winged Warbler males were heard singing within or adjacent to the study sites. There were six instances in which Golden-winged and Blue-winged Warbler territories overlapped to a significant extent.

Thirty-five adults of the two species were seen. No “typical” hybrids of Brewster’s or Lawrence’s types were seen among the returning adults. Moreover, none of the Golden-winged Warblers had a yellow wash on the underparts or white wing bars, and none of the Blue-winged Warblers had any white on the chest or belly, or broad, yellow wing bars.

A summary of the 1986 observations is given in Table 1. Highlights are given here below for some of the sites:

**Site #2:** On July 3 a pair of Golden-winged Warblers and a pair of Blue-winged Warblers, each with a pair of young birds, was found on the west side of Route 515. In both cases the young birds were fully feathered and appeared similar to the adult female in plumage.

**Site #3:** On June 22 a male Golden-winged Warbler and a female Blue-winged Warbler were observed feeding a young bird on the east side of Route 515 along the river. Although this bird had considerable brown color on its chest, it looked like a young Blue-winged Warbler with yellow underparts and two thin, barely discernible, wing bars. Neither adult bird showed any evidence of being a hybrid. According to Parkes (1951), a heterozygous Blue-winged Warbler, which would give the appearance of a ‘pure’, or homozygous, Blue-winged Warbler, can be produced from a mating between a homozygous Blue-winged Warbler and a heterozygous Golden-winged Warbler. The latter represents a second generation hybrid resulting from a cross between an F1 Brewster’s and a homozygous Golden-winged Warbler. The heterozygous Golden-wing should show yellow on the underparts. This was not the case, which raises the question whether the birds were a mated pair.

**Site #4:** There were three Golden-winged Warblers at this site, although it was not clear whether they all were able to establish territories. On May 31, one of the birds was singing about thirty yards from the other two, which were having a territorial dispute in song. I was able to observe this dispute from about 9:25 am, when I found the contest already in progress, until 10:00 am, when it ceased. The two males were continually changing location

**Table 1. Summary of 1986 Observations**

Site	Area <sup>a</sup> (acres)	# Singing		# of GWW/BWW Overlapping Territories	Nesting/Young Observations
		GWW	BWW		
1	10	3	5	0	1 BWW w/1 young
2	7	3	3	2 <sup>b</sup>	1 pair GWW w/2 young 1 pair BWW w/2 young
3	7	3	4	1	1 GWW male 1 BWW female feeding 1 young 1 pair BWW w/2 young
4	2.5	3	1 <sup>c</sup>	1	1 pair GWW w/2 young
5	8	3	1	1	1 GWW nest w/4 young <sup>d</sup>
6	3	2	1	1	no nests or young seen

a. Area is an estimate based on approximate length and width as paced off by foot.

b. One of these overlapping territories had both GWW and BWW broods.

c. An additional Blue-winged Warbler male was located on the other side of Route 515.

d. The young apparently did not fledge.

within the contested area, a 30-foot length of the southwestern perimeter of the swamp, centered on a red maple tree. The contest took the form of song responses, one immediately answering the other. It appeared as if each were trying to gain position or trying to 'cover' the other bird; when one would fly to the east, the other followed and both would sing, one immediately after the other. Then they would both fly to the west side and repeat the process. Each bird sang frequently and occasionally there would be a brief encounter or chase. Throughout the contest both males sang the Type I (Gill and Lanyon 1964) or primary (Ficken and Ficken 1967) Golden-wing song conventionally represented as *bee-bz-bz-bz*. At about 10 am, there was a protracted chase, winding back and forth through the trees at a height of about fifteen to twenty feet and lasting for one minute or longer. Afterwards only one bird was evident and it now sang a Type II (Gill and Lanyon 1964) or secondary

(Ficken and Ficken 1967) song: a six- to seven-note trill followed by a three-note ending. In the midst of this contest, a male Blue-winged Warbler was seen in one of the bushes. It sang a Type I Blue-wing song a few times but was ignored by, and seemed to ignore, the Golden-winged Warblers.

On July 3 a pair of Golden-winged Warblers was found feeding a pair of young in the bushes along the southwestern edge of the swamp. Both young birds appeared to be recently out of the nest and the younger of the two still had tufts of down sticking out from its back and above the eyes. The late date suggests that this was a second nesting.

**Site #5:** On May 26 a female Golden-winged Warbler was found on a nest in a clump of sedges in the red maple swamp at the north end of the site. This nest contained five eggs; on May 31, it still contained five eggs; on June 1, there were four young and one unhatched egg. Since approximately ten days are spent in incubation (Bent 1963), the date of egg laying would have been around May 21-22. On June 7 the nest was empty. No adults or young were evident in the area.

## 1987

In 1987 the survey was concentrated in site #3 of the previous year. This is summarized separately below. Some of the other sites from 1986 were visited and additional areas within the 5.5 mile length were covered. In total there were 35 males singing within the 5.5 mile study area, fifteen apparently pure Golden-winged, one hybrid Golden-winged, and nineteen Blue-winged Warblers. Two of the Blue-winged Warbler males had a yellow tint in their wing bars, a feature that was only apparent in good light and at close distances. This might suggest introgression; however, a recent field study by F. Gill (1987) concludes that traces of yellow in the wing bars could represent natural variation rather than introgression. Twenty-nine adults of both species were actually seen, one of which was an obvious later-generation cross. In addition to the nests and young at Site #3 (described below), a Blue-winged Warbler nest with five eggs was found on May 23 in Site #4 and a pair of Golden-winged Warblers with one or two young out of the nest was found in Site #6 on June 13.

**Site #3:** This site had nine males: three Golden-winged Warblers, one Golden-winged Warbler with a yellow chest patch, and five Blue-winged Warbler males, all with established territories. One of each species was located along Route 515,

for the most part on the west side. All the others were located along the river on the east side of the spruce grove which itself is on the east side of Route 515.

The first bird seen in 1987 was a male Golden-winged Warbler with a bright yellow patch beneath the black throat patch. The yellow patch was in the form of an inverted triangle of about the same size as the black throat patch and just below it, so that the black of the throat was adjacent to the yellow of the chest. The yellow patch was brightest at the top center and less intense at the edges. The remainder of the underparts was white. The wing bars were broad and yellow, the primaries were edged with yellow, the upper back was gray, and the rump had a tinge of yellow-green similar to the Blue-winged Warbler. It was singing a Blue-wing Type I song. This bird was first seen on May 13 and last seen on June 1. It established a territory that overlapped in part two Blue-winged Warbler territories. On May 18, it was observed in an agonistic song encounter with a Golden-winged Warbler at the north edge of its territory; both birds were singing Type II songs. On June 1 it was observed singing in a position between two Blue-winged Warblers that were singing in opposition to one another. All three birds were singing Type II songs.

In both of the Blue-winged Warbler territories that overlapped the territory of the hybrid Golden-winged Warbler, a Blue-winged Warbler pair successfully nested and fledged young. One of these nests was found on May 25. The location of the other nest was determined to be in a tangle of shrubs by the behavior of the parent birds that were carrying food; the search for the actual nest was not carried out in the face of the excessive agitation of the parent birds. Both broods were out on June 20. The male Golden-winged Warbler on territory to the north was paired with a female Golden-winged Warbler as evidenced by a nest with young, found on June 10. The nest fell to a predator before June 13 when the nest was examined.

I was not able to find any evidence that the hybrid Golden-winged Warbler had obtained a mate until June 13 when a female Golden-winged Warbler was seen briefly within its territory. It was, however, in the clump of shrubs that contained one of the Blue-winged Warbler nests and was chased away by a bird of that species. On June 20, in the same location, a female Golden-winged Warbler was found with a single young bird with dark gray underparts, a yellow crown, a single, thin wing bar, yellow edging on the primaries and the secondaries and no evidence of a throat patch. Since the two Blue-winged and single Golden-winged Warbler territories in the vicinity were all accounted for, I believe that these birds must have been the mate and possible offspring of the hybrid Golden-winged Warbler.



In the remainder of the site there were three territories: two Blue-winged and one other Golden-winged located farther north along the river; there was also one territory of each species on the west side of Route 515. On June 20 a pair of Golden-winged Warblers with three fully grown young was found at the north end of the site. Both Blue-winged Warblers at the north end were singing on June 20, and one of these was singing on June 27. However, no nests or young were found. On June 17, on the west side of Route 515, a pair of Golden-winged Warblers with three well-marked, fully-grown young Golden-winged Warblers was found along with one obviously younger Blue-winged Warbler.

### **1988**

In 1988, the field study was redirected in order to cover as much of the available habitat as possible within the 5.5 miles. Coverage was extended up the dirt road in Site #1 about half way to Canistear Reservoir. The land on the east side of this road is in deciduous forest but on the west side there is a large alder swamp that extends west to Route 515. The area of coverage was similarly enlarged at all the other sites and along Route 515, so that almost all swamps adjacent to or near the road were surveyed.

A total of 23 singing male Golden-winged Warblers and 34 singing male Blue-winged Warblers were noted; 36 adults of both species were seen. One of the Blue-winged Warblers had broad, yellowish wing bars that probably indicated introgression, and one Blue-winged Warbler was singing a Golden-wing song. No other hybrids were noted.

One nest of each species was found. Surprisingly, considering the large area covered, they were found within thirty-five yards of each other in an alder swamp at Site #6. The Golden-winged Warbler nest was found on May 28 with five eggs; on June 4, it still contained five eggs. On June 7 there were five tiny young with their eyes still closed. On June 14, the nest was empty although seemingly undisturbed. The Blue-winged Warbler nest was found on June 14 with five young birds practically spilling out of the nest. On June 19 the nest was empty although the parent birds and the young were still in the area. In addition, a pair of Golden-winged Warblers with a single young bird were found in Site #5 on June 19.

### **Summary and Discussion**

1. Over a three-year period, 55 singing Golden-winged Warblers and 69 singing Blue-winged Warblers were counted in the study area, approximately

twelve miles to the west of Wanaque Reservoir. The Wyanokie census of 1916 to 1933 (Eaton 1934) was in this area and the reservoir location itself, prior to its being flooded, was the site of observations of a Brewster's Warbler over a six-year period from 1922 through 1927 (Carter 1944). Thus it can be concluded that the Golden-winged and Blue-winged Warblers have been in contact in the general vicinity of the study area for at least 73 breeding seasons. The Wyanokie census (Eaton 1934) gave eighteen-year totals of 948 Golden-winged Warblers and 445 Blue-winged Warblers, for a combined total of 1393. Unfortunately, it did not give the breakdown annually, so the census cannot be utilized to investigate trends during the time period of the census. The relative abundance of the two species has apparently changed but whether this is due to a decline in the Golden-winged Warbler population, an increase in the Blue-winged Warbler population, or both, cannot be determined.

2. One hundred adults of both species were seen during the study period, a number that probably includes some birds seen on two or all three years. One later-generation hybrid, a Golden-winged Warbler with a yellow patch on its chest, one Blue-winged Warbler with broad, yellow-tinted wing bars, and one Blue-winged Warbler singing a Golden-wing song are included in this total. No Brewster's or Lawrence's Warblers were seen.

During 1986 and 1987, a breeding bird study of the entire Pequannock Watershed was conducted by Benzinger and others (1988). The survey noted one singing Brewster's Warbler in 1986.

In 1986, a study of Golden-winged and Blue-winged Warblers was conducted at various locations in New York State (Frech and Confer 1987) and one of the sites was in the Ramapo Mountains of Orange County, just to the north of the present study area. Frech and Confer reported observing 7 Golden-winged Warblers, 13 Blue-winged Warblers and no hybrids.

During the three years of this study, nine pairs of Golden-winged Warblers and five pairs of Blue-winged Warblers were found with a nest or with young. One mixed pair with a single young bird was also observed but there is some doubt that the adults were the parents since the young bird showed no characteristics of a hybrid. The results of this study, together with Benzinger (1988) and Frech and Confer (1987), indicate that the percentage of hybrids in the population is low.

A comparison of the Wyanokie censuses of 1916 to 1933 with the present results may be of interest. According to Eaton (1934), 13 Brewster's and 4

Lawrence's Warblers were reported in addition to a stated total of 1393 Golden-winged and Blue-winged Warblers. Unfortunately, it is not known how many of these 1393 warblers were observed and, considering the nature of the survey, it may be that as few as one-fourth of the total were actually seen. Using a rough estimate of 350 birds seen, with seventeen hybrids included, gives a ratio of 1:20 or 5 percent. Carter's study (1944) does not give numbers, but he reports 4 Brewster's Warblers, 3 Lawrence's Warblers and 5 Golden-winged Warblers with a yellow wash on the underparts or sides. All in all, it seems that the percentage of hybrids in the population is less today than it was in the past.

3. There were numerous cases where Golden-winged Warblers and Blue-winged Warblers shared overlapping territories. Extensive overlap of Golden-winged Warbler and Blue-winged Warbler territories was also noted by Frech and Confer (1987) at a study site in the Ramapo Mountains. In the present study, a female Golden-winged Warbler being chased by a Blue-winged Warbler of undetermined sex was the only agonistic interaction observed between the two species.

### **Conclusion**

The present northward shift in the range of both the Golden-winged and the Blue-winged Warbler has resulted in the apparent displacement of the Golden-winged Warbler by the Blue-winged Warbler. This has occurred within 50 years of contact in other locations (Gill 1980). However, as the results of this paper indicate, the two species have been in contact for a considerably longer period of time in northwest New Jersey, and also in southern New York State (Frech and Confer 1987). The relative abundance has shifted so that the Blue-winged Warbler has become the more common species, but the Golden-winged Warbler can still be found locally in good numbers. In addition there is only a small percentage of hybrids. The continued presence of the Golden-winged Warbler in this part of New Jersey during the range expansion of the Blue-winged Warbler, coupled with the present lack of hybrids, suggests that pre-zygotic isolating mechanisms are at work in the population.

If the Golden-winged Warbler does remain in New Jersey as a breeder, it presents an interesting problem. Both species, at least in the swampy habitat chosen by the Golden-winged Warbler, show similarities in arrival dates, choice of singing perches and nest sites, type of nest constructed, egg laying patterns and fledging dates. There may be subtler differences between the



two species that further field work will clarify. For the present, the Pequannock Watershed provides an unusual opportunity to study the dynamics of interaction between these two species.

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# *Albinism in the Sooty Shearwater*

Paul R. Sweet

ON 1 OR 2 June 1992, a white procelariiform bird was found dead on the beach at Fort Tilden on the Rockaway Peninsula, Queens County, New York. The bird was prepared as a study skin (AMNH 827917) (Fig. 1). At preparation the specimen weighed 442 grams and was in good flesh with light fat. No molt was observed and the feathers appeared quite fresh with almost no wear. The entire plumage was snowy white, the legs and feet pinkish-white and the bill very pale horn. Eye color and sex could not be determined due to the poor condition of the specimen. Based on size and bill shape, this specimen was identified as a Sooty Shearwater (*Puffinus griseus*).

Albinism was not noted for this species in several reviews on the subject (Ross 1963, Gross 1965, Lepschi 1990), however a search of the literature and the AMNH collection revealed many incidences. Loomis (1918) reported that the California Academy of Sciences collection contained "half a dozen striking examples," and described two specimens: a female (CAS 9705) taken on 17 June 1907 in Monterey Bay, California, of which the "plumage of the head, neck, and anterior portions of the back and breast is white, relieved by a few gray feathers on the throat. The rest of the body-plumage (except that of the rump) and the tail-coverts are extensively white. Nearly all the greater wing-coverts, the growing inner primaries and scapulars are wholly white . . . in life the irises were brown and the feet and bill white, the latter tipped with brown." A second specimen (CAS 16062) (Fig. 1), also female, taken on 6 September 1909, from the same locality, is described as follows: "the plumage of the head and neck is immaculate white. The rest of the body-plumage (except the white-tipped scapulars), the wings, and the tail-coverts are largely white." The remaining four specimens mentioned by Loomis, plus an additional five from the same collection, have varying amounts of white plumage at different parts of the body (B. D. Cutler, pers. comm.). Interestingly, all these specimens are from Monterey Bay, where Stallcup (1976) has observed "symmetrically par-



FIGURE 1: DEGREES OF ALBINISM IN SOOTY SHEARWATERS: from top to bottom. "Normal" plumage, CAS 9693, female, California: Monterey Bay, 29 May 1907. AMNH 827917, New York: Queens Co., Fort Tilden. MCZ 184876, female, Massachusetts: 20 miles east of Chatham Light, 11 August 1956. CAS 16062, female, California: Monterey Bay, 6 September 1909.

tial-albino individuals on more than one occasion” which “looked surprisingly like” the Cape Petrel (*Daption capensis*).

From the east coast of North America, Ross (1963) mentions “a specimen in mottled plumage.” This appears to be MCZ 184876 (Fig. 1), a female taken 20 miles east of Chatham Light, Massachusetts on 11 August 1956. The plumage of this individual has a washed-out or bleached appearance but no pure white feathers and is quite different from the California birds which have a mosaic of pure white and normally colored feathers.

From the Southern Hemisphere, Poppelwell (1917) reports being shown a live specimen captured on 26 April 1916 at Piko-mamaku-iti, an islet off Stewart Island, New Zealand. This bird, a fledgling taken from the nest, had a pure white head, neck, upper breast and tail. Its bill was pinkish-white, legs pink, and eyes greenish. He also mentions a pinkish white “mutton-bird” (a name used colloquially in New Zealand for *P. griseus*) with black eyes, which he did not personally see, taken on Evening Island, off South Cape, New Zealand. The bird was released as it was considered an “evil omen” by the Maori. According to Poppelwell, white specimens were so well known to “mutton-birders” that they had names for them; “jimmy bird” for white or pink-eyed individuals and “queen bird” for dark-eyed ones. Oliver (1955) reports two other occurrences of albinism from New Zealand. On Stewart Island, a cream-colored chick was harvested from the same burrow in five successive years, but the color of the parents was not noted. On Snares Island, a “partial albino” with “the back almost entirely white and the under-surface largely mixed with white” was obtained. Bailey and Sorensen (1962) observed one or possibly two individuals at sea to the east of the Auckland Islands, New Zealand, on 10 and 11 February 1945 that were “almost wholly white with only a few dark feathers except on the wings which were almost wholly dark.”

The AMNH collection contains several additional unreported specimens all collected around New Zealand. Two specimens (527613 Snares Island, 527608 Stewarts Island) are “dilutes” with silvery gray plumage similar to the Massachusetts specimen. A specimen from “New Zealand”, 453933, is a dirty cream color with a pale bill but normal feet. From Stewarts Island there are two pied specimens (527607 and 527614); interestingly 527607 is a fledgling of which the remaining down is cream rather than the normal sooty color.

Gross (1965) identifies four degrees of albinism: (1) “total” or “pure” where there is a complete absence of pigment; (2) “incomplete,” when pigment is absent from the plumage, eyes or skin, but not all three; (3)



“imperfect,” when pigment is reduced or diluted in any or all three areas but never completely absent; and (4) “partial,” when pigment is absent from localized areas.

Most examples of albinistic Sooty Shearwaters from the literature fall into category (4); the Massachusetts bird and two “dilutes” from New Zealand would fall into category (3), the “dirty cream” AMNH specimen and the “pinkish white” individual with black eyes from Evening Island probably belong to category (2). Unfortunately, since the eye color of the New York specimen is unknown, we cannot be sure whether it is a “pure” or “incomplete” albino (*sensu* Gross 1965). Despite this, it remains the first verifiable record of a pure white-plumaged Sooty Shearwater.

DEPARTMENT OF ORNITHOLOGY  
AMERICAN MUSEUM OF NATURAL HISTORY  
CENTRAL PARK WEST AT 79TH STREET  
NEW YORK, N.Y. 10024

#### Acknowledgements

The staff of Gateway National Recreation Area, Breezy Point Unit, donated the albino bird; Parker Cane prepared the specimen. I thank Luis F. Baptista and Betsy D. Cutler of the California Academy of Sciences and Raymond A. Paynter, Jr. of the Museum of Comparative Zoology (MCZ) for the extended loan of specimens in their care. I also thank John Bates, Robert Dickerman, Carole Griffiths, Nedra Klein, Mary LeCroy and Emanuel Levine for their helpful comments on the manuscript.

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*Published Writings of  
Eugene Eisenmann,  
1944-1984*

Compiled by  
Mary LeCroy and Sheila Walker

**E**UGENE EISENMANN PUBLISHED widely over a period of forty years; many of these papers appeared as special publications or as articles in obscure journals and there appears to be no complete listing of his publications. The following bibliography was drawn up in connection with the binding of a set of reprints for the Department of Ornithology at the American Museum of Natural History. It is based on a partial bibliography found in Eisenmann's effects after his death. Additionally we consulted the *Zoological Record* and his own (very incomplete) reprint file; we also checked the yearly indices to journals in which he regularly published. There are undoubtedly other articles, particularly on topics having to do with conservation in the New World tropics, which would have appeared in publications not indexed in *Zoological Record*. We would appreciate any information about any articles by Eugene Eisenmann which do not appear in the following list.

We have made no attempt to include biographical data; major memorials to Eisenmann are cited at the end of the bibliography.

We would like to thank Katherine Ray for providing several titles that we missed and Jill Hamilton and Eric Salzman for their expert editorial assistance.

N.B.: Spanish accents are given as they appeared in the original publications.

**1944**

1. The European Widgeon in North America. *Auk* 61:335.
2. Notes from South Carolina. *Auk* 61: 475-476 (with J.L. Bull, Jr. & G. Komorowski).

**1946**

3. Acorn storing by *Balanosphyra formicivora* in Panama. *Auk* 63: 250.
4. Homestaking with a song. *Audubon Magazine* 48 (5): 266-270.
5. Suggested principles for vernacular nomenclature. *Wilson Bull.* 58 (4): 210-215 (with H. H. Poor).
6. Interchange of song between Blue-winged and Golden-winged Warblers. *Proc. Linn. Soc. N.Y.*, Nos. 54-57: 53-54.

**1947**

7. Summary of report of committee on vernacular names. *Linn. News-L.* 1 (2) (with H. H. Poor).
8. Audubon's Caracara in New York. *Auk* 64: 470.

**1948.**

9. Surf-bird and Vermilion Flycatcher in Panamá. *Auk* 65: 605-606.

**1950**

10. Some notes on Panamá birds collected by J.H. Batty. *Auk* 67: 363-366.
11. An autumn day at Montauk Point, with comments on the field identification of certain sparrows. *Linn. News-L.* 4 (7).
12. Behavior and habitat of *Thryophilus leucotis* in Central Panamá. *Wilson Bull.* 62 (4): 216.

**1951**

13. Northern birds summering in Panama. *Wilson Bull.* 63 (3): 181-185.
14. Copulatory behavior in the Least Tern. *Proc. Linn. Soc. N.Y.*, Nos. 58-62: 71.
15. Brewer's Sparrow on Long Island. *Proc. Linn. Soc. N.Y.*, Nos. 58-62: 74-75 (with I.N. Alperin).

**1952**

16. Annotated list of birds of Barro Colorado Island, Panama Canal Zone. *Smithsonian Misc. Colls.* 117 (5), 62 pp.
17. What to do with specimens of rare birds. *Jack-Pine Warbler* 30 (4): 132-134. Reprinted from *Linn. News-L.* 5 (6).
18. Olivaceous Cormorant. *Wilson Bull.* 64 (4): 194-196.

**1953**

19. Behavior notes on White-winged Crossbills during the 1953 incursion on Long Island. *Kingbird* 3 (2): 36-37.
20. Notes on the voice of the Alder or Traill's Flycatcher. *Kingbird* 3 (2): 38-39. (Reprinted from *Linn. News-L.* 7(5)).
21. What bird lays black eggs? *Auk* 70: 362-363.
22. The seminar on breeding season—a summary. *Linn. News-L.* 7 (4).
23. The "cryptic notes" in bird song. *Linn. News-L.* 7(7).
24. Should subspecies be given English names? *Kingbird* 3 (4): 89.
25. The nest of the Long-billed Gnatwren (*Ramphocaenus rufiventris*). *Auk* 70: 368-369.

**1954**

26. Seventy-five years of the Linnaean Society of New York. *Proc. Linn. Soc. N.Y.*, Nos. 63-65: 1-9.
27. Review: A field guide to the birds of Britain and Europe, by R. Peterson, G. Montfort (sic), P.A.D. Hollom. *Linn. News-L.* 9 (3).
28. Peculiar behavior of Tree Swallows in relation to dead of their species. *Proc. Linn. Soc. N.Y.*, Nos. 63-65: 73-74 (with J.L. Bull, Jr.).

**1955**

29. The species of Middle American birds. *Trans. Linn. Soc. N.Y.* vol. 7, vi + 128 pp.
30. Review: Finding birds in Mexico, by Ernest Preston Edwards. *Linn. News-L.* 9 (4).
31. Review: Las aves del Parque Nacional "Henri Pittier" (Rancho Grande) y sus funciones ecologicas, by Ernst Schäfer and William H. Phelps. *Linn. News-L.* 9 (4).
32. Status of the Black-pollled, Bay-breasted, and Connecticut Warblers in Middle America. *Auk* 72: 206-207.
33. Cattle Egret, Marbled Godwit, Surf-bird and Brown-chested Martin in Panama. *Auk* 72: 426-428.
34. More on English names in the Middle American list. *Linn. News-L.* 9 (6-7).

**1956**

35. The changing seasons. A summary of the nesting season. *Audubon Field Notes* 10 (5): 368-369.

36. The English name of the hummingbird *Amazilia yucatanensis*. *Linn. News-L.* 10 (2).
37. Galapagos Penguin in Panamá. *Condor* 58: 74-75.
38. Opportunities for studies from birds killed in striking obstacles on migration. *Linn. News-L.* 10 (6).

#### 1957

39. Teenagers and birds. *Linn. News-L.* 10 (9).
40. Notes on birds of the province of Bocas del Toro, Panama. *Condor* 59 (4): 247-262.
41. "Seventy-five years of the Linnaean Society of New York—a correction." *Proc. Linn. Soc. N.Y.*, Nos. 66-70:92.

#### 1958

42. Corrigenda to "The Species of Middle American Birds". *Proc. Linn. Soc. N.Y.*, Nos. 66-70; 93 (separate sheet).
43. Correspondence: More on the Solitaire. *Bull. Mass. Audubon Soc.* 42 (4): 217.
44. Review: The Birds of Isla Coiba, Panama, by Alexander Wetmore. *Quart. Rev. Biol.* 33 (1): 81.
45. The New A.O.U. Check-list. *Linn. News-L.* 11 (7 and 8).
46. Review: L.L. Synder (sic.), Arctic birds of Canada. *Linn. News-L.* 11 (7 and 8).
47. The spelling of *Notharchus macrorhynchos hyperrhynchus* (Sclater). *Auk* 75: 101.
48. Mourning Dove breeding in Costa Rica. *Condor* 60: 405.
49. The new A.O.U. check-list from the viewpoint of the amateur. *Kingbird* 8 (2): 37-39.

#### 1959

50. The correct specific name of the Quetzal, *Pharomachrus mocinno*. *Auk* 76: 108.
51. South American migrant swallows of the genus *Progne* in Panama and northern South America; with comments on their identification and molt. *Auk* 76: 529-532.
52. The American Ornithologists' Union. *Blue Jay* 17 (3): 87-89.
53. Dr. Erwin Stresemann on "The Feather." *Linn. News-L.* 13 (3).
54. Bulls's (sic) "Birds of the New York City Area." *Linn. News-L.* 13 (4): 4.



55. Meeting on the Midway Island albatrosses. *Linn. News-L.* 13 (6).  
 56. Ed. note [On distinguishing the Eskimo Curlew from its allies]. *Auk* 76: 541.

#### 1960

57. Further comments on the Hawk Mountain petrel. *Linn. News-L.* 13 (7).  
 58. Review: The birds of the Palearctic fauna: passeriformes, by Charles Vaurie. *Linn. News-L.* 13 (7).  
 59. Review: Birds of Rockland County and the Hudson highlands, Rockland (N.Y.) Audubon Soc. *Linn. News-L.* 13 (8).  
 60. Review: A field guide to the birds of Texas, by R. T. Peterson. *Linn. News-L.* 14 (5).  
 61. Palearctic waders in eastern North America. *British Birds*, 53: 136-140.

#### 1961

62. On field identification of the Long-billed Dowitcher. *Linn. News-L.* 15 (1).  
 63. Review: The bird watcher's guide, by Henry Hill Collins, Jr. *Linn. News-L.* 15 (5).  
 64. Shorebirds and "swimmer's itch" on Long Island. *Linn. News-L.* 15 (6).  
 65. Review: A field guide to western birds, by R.T. Peterson. *Linn. News-L.* 15 (6).  
 66. Favorite foods of Neotropical birds: flying termites and *Cecropia* catkins. *Auk* 78: 636-638.  
 67. Observations on birds on the island of Hawaii. *Elepaio* 21: 66-70.

#### 1962

68. The taxonomic status of the hummingbirds *Chalybura melanorrhoa* and *Chalybura urochrysa*. *Condor* 64 (4): 300-310 (with T. R. Howell).  
 69. Notes on some Neotropical vireos in Panamá. *Condor* 64 (6): 505-508.  
 70. The voices of dowitchers. *Linn. News-L.* 15 (9).  
 71. Notes on nighthawks of the genus *Chordeiles* in southern Middle America, with a description of a new race of *Chordeiles minor* breeding in Panamá. *Amer. Mus. Novitates*, No. 2094, 21 pp.  
 72. A new species of swift of the genus *Cypseloides* from Colombia. *Amer. Mus. Novitates*, No. 2117, 16 pp. (with F.C. Lehmann V.).  
 73. An erroneous Panama record of *Puffinus tenuirostris* and other misidentifications of *P. griseus*. *Emu* 62: 199-201 (with D.L. Serventy).

74. On the genus "*Chamaethlypis*" and its supposed relationship to *Icteria*. *Auk* 79 (2): 265-267.
75. Review: Birds of the world, by Oliver L. Austin, Jr. *Linn. News-L.* 16 (4).
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77. Species accounts, family FREGATIDAE. In: Palmer, R. S. (ed.), *Handbook of North American Birds*, vol. 1, pp. 365-380.

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79. Mississippi Kite in Argentina; with comments on migration and plumages in the genus *Ictinia*. *Auk* 80 (1): 74-77.
80. Review: The migration of birds, by Jean Dorst. *Linn. News-L.* 17 (1).
81. The natural history library: Hickey's "A guide to bird watching" is reprinted. *Linn. News-L.* 17 (2).
82. Bear Island murre colony. *Nat. Hist.* 72 (1): 26-31.
83. Review: Handbuch der Oologie, by Max Schönwetter. *Auk* 80 (3): 390-391.
84. Is the Black Vulture migratory? *Wilson Bull.* 75 (3): 244-249.

#### 1964

85. Review: Animal species and evolution, by Ernst Mayr. *Linn. News-L.* 17 (8).
86. Reading bird bands through a telescope. *Linn. News-L.* 17 (9).
87. Comment on proposal to suppress *Tanagra* Linnaeus, 1764. *Bull. Zool. Nomencl.*, 21: 186-188. (On behalf of Standing Committee on Ornithological Nomenclature)
88. Protection. United States of America, pp. 667-668; Trogon, pp. 839-840. In: Sir A. Landsborough Thompson, Ed., *A New Dictionary of Birds*, 982 pp., Brit. Orn. Union and McGraw Hill Book Co., London and New York.

#### 1965

89. The use of the terms "juvenal" and "juvenile." *Auk* 82 (1): 105.
90. The tiger-herons (*Tigrisoma*) of Argentina. *Hornero* 10: 225-234 [1966].
91. Memorandum on proposal to validate *Cacatua*. *Bull. Zool. Nomencl.* 22(3): 156-161. (By Standing Committee on Ornithological Nomenclature, written by E. Eisenmann.)

92. Review: Checklist of birds of Puerto Rico and the Virgin Islands, by N.F. Leopold. *Auk* 82 (2): 297-298.
93. An old appreciation of the Linnaean Society. *Linn. News-L.* 19 (5).
94. Support for proposal to suppress generic names *Tanagra* Linnaeus, 1764, and *Tanagra* Linnaeus, 1766; and to place *Euphonia* Desmarest, 1806, on the official list of generic names in zoology (Aves). *Bull. Zool. Nomencl.* 22 (1): 12.

#### 1966

95. Notes on breeding of the Common Nighthawk in Panama. *Auk* 83 (3): 469-470 (with S.L. Olson).
96. *Falco rufifularis*—the correct name of the Bat Falcon. *Condor* 68 (2): 208-209.
97. Comments on repeats and recoveries of migrants in Panama. *Bird-Banding* 37 (4): 286.
98. Comment on the proposals concerning the gender of names ending in *-ops*. Z.N.(S.) 1572. *Bull. Zool. Nomencl.* 23 (2/3): 75 (with R.G. Wolk).
99. Abbreviations in compound names: Amendment of Article 26 of the International Code of Zoological Nomenclature. *Bull. Zool. Nomencl.* 23 (5): 198-200 (with B.L. Monroe, Jr.)
100. Comment on the bird names in Kerr's "Animal Kingdom." *Bull. Zool. Nomencl.* 23 (6): 282.
101. Meyer de Schauensee, R. The species of birds of South America and their distribution. 577 pp. *Academy of Nat. Sciences of Philadelphia* (the title page reads "with the collaboration of Eugene Eisenmann.")

#### 1967

102. Birds of the Western Chiriqui Highlands, Panama. *Florida Audubon Soc. Field Checklist*, 33 pp. (with H. Loftin).
103. Comment on application for use of plenary powers to validate *Sterna tschegrava* and *Motacilla pleschanka* Lepechin, 1770. Z.N.(S.) 1784. *Bull. Zool. Nomencl.* 24 (5): 270-275 (with F. Salomonsen & K.H. Voous).
104. Breeding of the Band-tailed Gull (*Larus belcheri*) on the Atlantic Coast of Argentina. *Condor* 69: 42-48 (published under the name of Claës Olrog; a note in Eisenmann's handwriting on his copy of this article reads "Except for paragraphs on nesting, habits and distribution and maps, Eisenmann wrote this with some factual data from Olrog.")

105. A list of birds known from the Cerro Campana Area, Panama (1967). Florida State Univ., *Ctr. for Trop. Studies*, Spec. Rept. #3, 7 pp. (with H. Loftin).
106. Checklist of birds known from the vicinity of the Heurtematte-La Jagua Tropical Field Station. Florida State Univ., *Ctr. for Trop. Studies*, Spec. Rept. #4, 9 pp. (with H. Loftin).
107. Field checklist of the birds of the Panama Canal Zone area. *Florida Audubon Soc.*, 33 pp. (with H. Loftin).
108. Report of the standing committee on ornithological nomenclature of the Int'l. Ornith. Congress, 1963-1966, pp. 359-364. In: Snow, D.W. (Ed.), *Proc. of the 14th I.O.C.*, Oxford, 1966, xxiii-405 pp.

#### 1968

109. Yellow-green Vireo collected in Texas. *Wilson Bull.* 80 (2): 235 (with J.I. Richardson and G.I. Child).
110. Behavior of Orange-chinned Parakeets in Panamá. *Condor* 70 (1): 86.
111. Distributional records from Cerro Campana, Panamá, with notes on a nesting of the quail-dove, *Geotrygon lawrencii*. *Condor* 70 (2): 179-180 (with S. L. Olson and G.V.N. Powell).
112. Birds of the Panama Canal Zone area. *Florida Naturalist* 41 (2): 57-60, 95 (with H. Loftin).
113. Opinion 852: *Tanagra* Linnaeus, 1764 (Aves): Suppressed under the plenary powers. *Bull. Zool. Nomencl.* 25 (2/3): 74-79 (includes restatement of case by E. Eisenmann.)

#### 1969

114. Wing formula as a means of distinguishing Summer Tanager, *Piranga rubra*, from Hepatic Tanager, *P. flava*. *Bird-Banding* 40 (2): 144-145.
115. Appendix to: Request for a ruling on the name of the family of which *Podiceps* Latham, 1787, (Aves) is the nominal type-genus (Z.N.(S.) 1509), by R.V. Melville (in which letters from Eisenmann are published). *Bull. Zool. Nomencl.* 26 (3): 146-159.
116. Review: Bird guide of Thailand, by Boonsong Lekagul. *Wilson Bull.* 81 (3): 345.

**1970**

117. *Plautus* or *Plotus* Gunnerus, 1761, *Plautus* Klein, 1760, *Plotus* Linnaeus, *Plautus* Brunnich, 1772 (Aves): Proposed rejection or suppression under the plenary powers. Z.N.(S.) 1911. *Bull. Zool. Nomencl.* 27 (2): 110-112 (with Dean Amadon, George E. Watson III, and Alexander Wetmore).
118. Avifauna in Panama. In: H.K. Buechner & J.H. Buechner (Eds.), The Avifauna of northern Latin America. A symposium held at the Smithsonian Institution 13-15 April 1966. *Smithsonian Contrib. Zool.*, No. 26: 50-57.
119. Review: A distributional survey of the birds of Honduras, by Burt L. Monroe, Jr. *Wilson Bull.* 82 (1): 106-109.
120. Frigatebird re-identified. *Audubon Field Notes* 24 (5): 653.
121. Northward migration to Surinam of South American martins (*Progne*). *Condor* 72 (3): 368-369 (with F. Haverschmidt).

**1971**

122. Field checklist of birds of the Panama Canal Zone area, 2nd ed. *Florida Audubon Society*, 38 pp. (with H. Loftin).
123. Una nueva subespecie de *Todirostrum maculatum* del delta del Orinoco. *Bol. Soc. Venezolana de Cien. Nat.* 29 (119/ 120): 186-194 (with W. H. Phelps).
124. Stability in zoological nomenclature. *Science* 174: 1041-1042 (with E. Mayr and G.G. Simpson)
125. *Loxia cyanea* Linnaeus, 1758 (Aves): Proposed invalidation under the plenary powers, in order to conserve *Tanagra cyanea* Linnaeus, 1766. Z.N.(S.) 1929. *Bull. Zool. Nomencl.* 27 (5/6): 259-261 (with R.A. Paynter, Jr., and C. Vaurie).
126. Range expansion and population increase in North and Middle America of the White-tailed Kite (*Elanus leucurus*). *Amer. Birds* 25 (3): 529-536.

**1972**

127. Report of the Pan-American section. *Bull. Intern. Council Bird Pres.* 11: 263-265.
128. Birds of the western Chiriqui highlands, Panamá—1972 (second edition). *Florida Audubon Soc. field checklist*, 35 pp. (with H. Loftin).



129. Report of the ad hoc committee on guidelines for the Brewster Memorial Award. *Auk* 89 (2): 436-438 (with D.S. Farner, T.R. Howell, and J.J. Hickey).
130. Comment on proposal to exclude from zoological nomenclature names for domestic animals. *Z.N.(S.)* 1935. *Bull. Zool. Nomencl.* 29 (3): 108.
131. Thraupidae (Aves). Comment on proposals (a) to amend author and date. (*Z.N.(S.)* 1976) and (b) to change spelling of name. (*Z.N.(S.)* 1965). *Bull. Zool. Nomencl.* 29 (4): 197.

#### 1973

132. Thirty-second supplement to the American Ornithologists' Union Check-list of North American Birds. *Auk* 90 (2): 411-419 (with Committee members).
133. Corrections and additions to the "Thirty-second supplement to the Check-list of North American Birds." *Auk* 90 (4): 887 (with Committee members).
134. Comment on proposal to suppress *Anthus paytensis* Lesson, 1837 (Aves) under the plenary powers in order to preserve *Geositta peruviana* LaFresnaye, 1847 and *Geositta paytae* Ménégaux and Hellmayr, 1906. *Z.N.(S.)* 1980. *Bull. Zool. Nomencl.* 30 (2): 71.

#### 1974

135. Comment and request for a declaration on proposal for an amendment to Article 33a of the International Code. *Z.N.(S.)* 1966. *Bull. Zool. Nomencl.* 31 (1): 10.
136. Obituary: John H. Baker 1894-1973. *Proc. Linnaean Soc. New York* 72: 99.
137. Obituary: Richard R. Chamberlain 1910-1971. *Proc. Linn. Soc. New York* 72: 99-100.
138. Comment on proposal to suppress *Pterodactylus crassipes* Meyer, 1857 and counter-proposal to recognize *Archaeopteryx lithographica* Meyer, 1861, and to fix its type-species [=specimen]. *Z.N.(S.)* 1977. *Bull. Zool. Nomencl.* 31 (3): 114-115.
139. *Plyctolophus ducrops* Bonaparte, 1850 (Aves): Proposed suppression under the plenary powers and validation of *Cacatua ducorpsii* Pucheran, 1853: *Z.N.(S.)* 2074. *Bull. Zool. Nomencl.* 31 (4): 240-243 (with J.M. Forshaw).

140. *Pinguinus* and *Alle* validated as generic names for Great Auk and Dovekie respectively. *Auk* 91: 432.

#### 1975

141. Comment in support of application to suppress *Anas punctata* Burchell, 1822 (Aves). Z.N.(S.) 794. *Bull. Zool. Nomencl.* 32 (1): 2-3 (with Committee members).

142. Comments on authorship and date of family-group name Thraupidae (Aves). Z.N.(S.) 1976. *Bull. Zool. Nomencl.* 32 (3): 131-132.

143. Report on the activities of the Pan-American section 1970-1974. *Bull. Intern. Council Bird Pres.* 12: 298-300.

#### 1976

144. Thirty-third supplement to the American Ornithologists' Union Check-list of North American Birds. *Auk* 93 (4): 875-879 (with Committee members).

145. Comment supporting application for opinion and declaration that species-group names with unlatinized Greek adjectival endings are indeclinable, and proposal to modify language of proposed declaration. Z.N.(S.) 2111. *Bull. Zool. Nomencl.* 33 (1): 6-8.

#### 1977

146. Rediscovery of the Crescent-faced Antpitta in Colombia. *Condor* 79 (3): 387-388 (with C. Lehmann V. and J.R. Silliman).

147. Comments on *Circinae* Sundevall, 1836 (Aves) versus *Circinae* Dall, 1895 (Mollusca). Z.N.(S.) 2112. *Bull. Zool. Nomencl.* 33 (3-4): 143.

#### 1979

148. A revised list of birds of Barro Colorado Island, Panama. *Smithsonian Contrib. Zool.* No. 291: 1-31. (with E.O. Willis).

#### 1980

149. *Toxostoma crissale* Baird, 1858 (Aves): support for proposed conservation. Z.N.(S.) 2215. *Bull. Zool. Nomencl.* 37 (1): 4.

**1982**

150. Identifying immatures of the smaller jaegers. *Linn. News-L.* 35 (8).  
151. Systematics of the avian genus *Emberizoides* (Emberizidae). *American Mus. Novit.* No. 2740, 21 pp. (with L.L. Short).

**1983**

152. Rediscovery of, and new data on, *Molothrus armenti* Cabanis. *Auk* 100 (4): 991-992 (with A. Dugand).  
153. Notes on Common and Antillean Nighthawks of the Florida Keys. *Auk* 100 (4): 983-988, (with H.M. Stevenson, C. Winegarner & A. Karlin).

**1984**

154. Threskiornithidae Richmond, 1917 (Aves): application to place on official list of family-group names in zoology and to give precedence over Plataleinae Bonaparte, 1838, and other competing family-group names. *Z.N.(S.)* 2136. *Bull. Zool. Nomencl.* 41 (4): 240-244 (with E. Mayr & K.C. Parkes).

**Memorials****1982**

Hays, H. (Ed.). In memoriam: Eugene Eisenmann, 1906-1981, *Linn. News-L.* 36 (1).

**1983**

Bull, J. and D. Amadon. In memoriam: Eugene Eisenmann. *Auk* 100 (1): 188-191.

**1986**

Graham, F., Jr. Eisenmann's monument. *Audubon*, January, pp. 40, 42.  
[MS] Vuilleumier, F. Five great Neotropical ornithologists: an appreciation of Eugene Eisenmann, Maria Koepcke, Claës Olrog, Rudolfo Philippi, and Helmut Sick.

DEPARTMENT OF ORNITHOLOGY  
AMERICAN MUSEUM OF NATURAL HISTORY  
CENTRAL PARK WEST AT 79TH STREET  
NEW YORK, N.Y. 10024

# Annual Report for the Year 1977-1978

## The Linnaean Society of New York

AT THE 99TH annual meeting of the Linnaean Society of New York, held on March 8, 1977, the following officers were elected:

President	Lois H. Heilbrun
Vice President	Robert O. Paxton
Secretary	John Farrand Jr.
Recording Secretary	Luanne Clark
Treasurer	Helen Hirschbein
Editor	Catherine Pessino

At the regular meeting on March 22, the Society elected Joseph DiCostanzo, Gordon Gavan, and Erna Hansen to serve on the Council for three years. Guy A. Tudor was elected to fill an unexpired term of one year.

At the regular meeting on April 12, 1977, following the resignation of Luanne Clark, the Society elected Helene Tetrault as Corresponding Secretary.

### Meetings Report

During the year 17 regular meetings and 3 informal summer meetings were held as follows:

8 March 1977	ANNUAL MEETING: <i>The Wildlife of Coastal Patagonia</i> William G. Conway
22 March	<i>Alaskan Wildlife</i> Kenneth A. Chambers
12 April	<i>Behavioral Strategies of Laughing Gull Chicks</i> Caldwell Hahn

- 26 April *Great Gull Island*  
Helen Hays
- 10 May *Breezy Point: Ecology and Natural History*  
Theodore Kazimiroff
- 24 May *A Birdwatcher's Venezuela*  
Michel Kleinbaum
- 13 September *Birds of the Argentine Pampas*  
Jorge Mata (with Guy Tudor)
- 27 September *Social Systems of Cowbirds*  
Michael Gochfeld
- 11 October *Sexual Discrimination in Dragonflies*  
Paul Miliotis
- 25 October *A Birdwatcher in Colombia*  
Michel Kleinbaum
- 8 November *The Hawk Flight at Cape May Point*  
William S. Clark
- 22 November *Bird and Virus Studies on the Venezuelan- Brazilian Border*  
Robert W. Dickerman
- 13 December *Distribution Patterns of New York State Fishes*  
C. Lavett Smith
- 10 January 1978 MEMBERS' THIRD ANNUAL SLIDE SHOW  
Moderator: Thomas H. Davis Jr.
- 24 January *The Future of the Amateur in Ornithology*  
Robert S. Arbib Jr.
- 14 February *Fruit Eating and Seed Dispersal by Tropical Birds*  
Daniel Janzen
- 28 February *Birds of Churchill, Manitoba*  
Paul Benham

### Field Trip Report

In the past year the Linnaean Society sponsored 29 field trips, in addition to taking part in three pelagic trips sponsored primarily by the Federation of New York State Bird Clubs, Inc. The revenues more than covered the expenses of the trips. Nothing but praise is due the registrars and leaders



who so generously contributed their time and expertise. This year we experimented with limiting participants on any one trip and with occasionally scheduling two trips to different destinations on the same day. Participants and leaders are generally in favor of continuing these arrangements. The Committee looks forward to equally successful trips in the coming season.

SUSAN R. DRENNAN, FIELD TRIP CHAIRMAN

### **Centennial Committee Report**

Members of the Centennial Committee of the Linnaean Society of New York take pleasure in announcing that Sarah Elliott and her Company will present the special gala program for this evening, the beginning of our centennial year.

Lilla Hind has done a splendid job of organizing the two trips to Churchill in June.

The rest of the Committee is working hard, fund-raising and planning the program for the October Colonial Waterbird Group Meeting which the Linnaean Society will host as the final event of our centennial celebration.

HELEN HAYS, CHAIRMAN

### **Editorial Report**

The *Proceedings 73* of the Society for the three years ending March 1977, was issued in August 1977. Our next publication will be *Transactions IX*, consisting of invited papers presented at the Colonial Waterbird Group Symposium to be sponsored by the Linnaean Society in October. Since the cost of printing *Proceedings 73* has depleted the Publications Fund, publication of *Transactions IX* will only be possible if the necessary funds are raised through donations from members and grants now being requested by the Centennial Committee.

CATHERINE PESSINO, EDITOR

*Editorial Committee Members:*

BERRY BAKER, EUGENE EISENMANN, JOHN FARRAND JR., MARY LE CROY.

### **Library Committee Report**

Because of damage to the library cabinet, the library has not been available for use for several months. Thanks to Bob Dickerman the damage has been repaired and the library is again accessible to members. It will be open at 7:30 pm before each meeting through May.

There are a number of new books which were generously donated by members, as well as some we have purchased.

LILLA M. HIND, CHAIRMAN

### **Great Gull Island Project Report**

The 1978 field season was a particularly successful one at Great Gull Island. Fish were in good supply and many young terns fledged. We trapped 1200 pairs of Common Terns, more than in any previous season.

In the fall, Matthew Male built 17 observation towers for a pilot study we will begin this spring. The towers overlook most of the large nesting areas for Common Terns. From the towers we will map the nests in each area using maps drawn by Richard Harrison for the project. We will repeat the mapping for several seasons to answer a number of questions: do terns which nest near one another in one season nest near each other the following season? do birds that hatch on the Island and return to nest, nest near the site where they hatched or near their parents, if the latter are still nesting on the Island?

The support of the Gull Island Project by members of the Linnaean Society has been a tremendous help. Thank you again and I hope you will all be able to continue your support this season.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

The Society again wishes to extend its thanks to Mr. and Mrs. Richard E. Harrison for their generosity in allowing the use of their home for Council and committee meetings during the past year.

During the year we were saddened to learn of the deaths of Locke Mackenzie, Marcia Brady Tucker, and Rodman Ward.

Sixty-two persons were elected to active membership, one to supporting membership, eight to associate membership and one to life membership during the year.

Membership in all classes is as follows: Active 402, Associate 98, Supporting 9, Life 33, Fellows 12, and Honorary 7, making a total membership of 561, including 3 dual memberships.

*Respectfully submitted,*  
JOHN FARRAND JR.  
SECRETARY

# *Annual Report for the Year 1978–1979*

## **The Linnaean Society of New York**

**A**T THE 100TH annual meeting of the Linnaean Society of New York, held on March 14, 1978, the following officers were elected:

President	Lois H. Heilbrun
Vice President	Robert O. Paxton
Secretary	John Farrand Jr.
Recording Secretary	Helene Tetrault
Treasurer	Helen Hirschbein
Editor	Catherine Pessino

At the regular meeting of March 28, Susan R. Drennan, Stephen Quinn, and Marc Weinberger were elected to the Council, each for a term of three years.

Following the resignation of John Farrand Jr., Sheila Madden was elected Secretary at the meeting of 23 May, and Mr. Farrand was elected to the Council to complete Miss Madden's unexpired term.

The following revisions in the Constitution and By-Laws were passed by members at the February 27, 1979 meeting:

- (1) Section 2, Article 2, of the Constitution was changed to read:  
"Persons holding Associate Membership as students shall be obliged to advise the Treasurer on or before the first day of September of each year as to their current and prospective status as students..."
- (2) Section 1, Article 1, of the By-Laws was changed to read:  
"Persons elected as Active, Associate and Supporting Members in the months of March, April and May shall pay dues at one-half the regular rates set by the Council until the following September..."

- (3) Section 1, Article 2, of the By-Laws was changed to read:  
 “Dues of Active, Associate and Supporting Members are payable no later than the first regular meeting in September...”
- (4) Section 1, Article 3, of the By-Laws was changed to read:  
 “By a majority vote of the current elective Council members, a person, who has been an Active or Supporting Member of the Society for at least twenty-five years and has reached the age of sixty-five, may be granted an Active membership at one-half the annual Active dues upon written application to the Treasurer.”
- (5) Section 1, Article 4, of the By-Laws was changed to read:  
 “... an Active Member, who is regularly enrolled as a full-time student for an entire academic year at an established institution of learning may have his status changed to that of Associate Member, provided his application is received on or before the first day of September...”

In addition to the above changes, the Council proposed to number the paragraphs in Section 2 of the Constitution: Articles 1 through 7.

### Meetings Report

During the year there were 17 regular meetings, 1 special meeting, and 3 informal summer meetings. Regular meetings were as follows:

- |               |   |
|---------------|---|
| 14 March 1978 | ANNUAL MEETING: A CENTENNIAL CELEBRATION<br>Reminiscences: Roger Tory Peterson<br>Entertainment: Sarah Elliott and Company<br>Slides: Thomas H. Davis Jr. |
| 28 March      | <i>Competition Between Herring Gulls and Other Colonial Birds in New Jersey</i><br>Joanna Burger  |
| 4 April       | <i>The Behavior of Mexican Jays</i><br>John William Hardy   |
| 11 April      | <i>The Antarctic Ecosystem</i><br>Dennis Puleston   |
| 25 April      | <i>A Layman Investigates Gull Breeding Biology</i><br>Thomas H. Davis Jr.   |
| 9 May         | <i>Field Identification and Status of Neotropical Raptors</i><br>Guy Tudor  |

- 23 May *Social Behavior in Marsh-dwelling Blackbirds*  
William Post
- 12 September *The Life History of the Purple Martin*  
Kathleen Klimkiewicz
- 26 September *Spring Pelagic Birding off Bermuda*  
David B. Wingate
- 10 October *Bird Migration over the Western Atlantic Ocean*  
Janet and Timothy Williams
- 24 October *The Selfish Behavior of Avian Altruists*  
Glen E. Woolfenden
- 14 November *Birding and Bird Photography in Trinidad*  
Herman Kitchen and Paul Sher
- 28 November *Clutch Size in the Western Gull on the Farallon Islands*  
Malcolm Coulter
- 12 December *European Migrants and Vagrants in North America*  
Bertel Bruun
- 9 January 1979 MEMBERS' FOURTH ANNUAL SLIDE SHOW  
Moderator: Thomas H. Davis Jr.
- 23 January *Bird Song Virtuosity: There's Method in the Madness*  
Donald E. Kroodsma
- 13 February *Birds and Conservation Problems in the Chaco*  
Robert S. Ridgely
- 27 February *Field Studies of Orientation in Nocturnal Migrants*  
Kenneth P. Able

### **Centennial Committee Report**

The three events celebrating the centennial of the Linnaean Society were concluded successfully. Special thanks go to our President, Lois Heilbrun, who so ably chaired the Annual Meeting beginning our centennial year. Sarah Elliott wrote and directed an entertaining series of skits for the meeting and the year was off to a flying start.

The next centennial event featured the landing at Churchill of two groups from the Society. This trip, organized by Lilla Hind, was enthusiastically acclaimed by participants and contributed Ruff and Ross' Gull to the Manitoba bird list.

The Colonial Waterbird Group Meeting, the final event of our centenni-



al year, was considered an excellent meeting by all who attended. Hard work by members of the Linnaean Society ensured that organizational details went smoothly.

Rikki Harrison designed a handsome patch for the Society to commemorate our centennial year. The patch design will appear as the logo for the March issue of the News-Letter.

We are grateful for the contributions from the membership, as well as from The National Science Foundation, The Scherman Foundation, Inc., and the Swedish Consulate, which supported the events of our centennial year.

Centennial Committee members Robert S. Arbib, Berry Baker, Thomas Davis, Robert W. Dickerman, Joseph DiCostanzo, Susan Drennan, Eugene Eisenmann, Sarah Elliott, John Farrand, Richard E. Harrison, Lois Heilbrun, Lilla Hind, Anthony J. Lauro, Roy Leaf, Mary LeCroy, Roger Pasquier, Catherine Pessino, Richard Sloss, and Helene Tetrault did an excellent job of planning and directing all the events and join me in wishing the Society all the very best in the next 100 years.

HELEN HAYS, CHAIRMAN

### **Field Trip Committee Report**

Since the Society's last Annual Meeting, 40 field trips were held, 38 of which were sponsored solely by the Linnaean Society and 2 of which the Society participated in as a member club of the Federation of New York State Bird Clubs. Our trips were led by expert member-birders with a cumulative total of 640 participants. The average number of participants on each trip was 16. This year the main emphasis was on one-day excursions to the best birding sites within a reasonable travelling distance from New York City, as well as to sites inside the city. Exceptions were the traditional two- or three-day trips to Cape Ann, Massachusetts; Whaleyville and Pocomoke Swamp, Maryland; Block Island, Rhode Island; and Montauk Point, Long Island.

Clearly the two trips to Churchill, Manitoba, were the most memorable and farthest afield. They were specially scheduled as part of the Society's centennial celebration and superbly organized by Lilla Hind. The overwhelming success of both trips is in no small part due to her efforts.

I would like to thank each of the competent leaders who generously shared their expertise in the field and each of the patient and resourceful registrars who helped make this past year an extremely successful and satisfying one for the Field Trip Committee.

SUSAN R. DRENNAN, CHAIRMAN

### **Editorial Report**

The Editorial Committee is now working on *Transactions IX*, which will consist of the invited papers presented at the Colonial Waterbird Group Symposium. This publication should be ready for distribution in the fall.

CATHERINE PESSINO, EDITOR

### **Library Committee Report**

We have acquired many new books during the year through gifts and purchases. The library is used quite regularly by some members and we hope that more members will avail themselves of this privilege during the coming year.

My thanks to Helene Tetrault and Joe DiCostanzo for their assistance in opening the library one-half hour before each regular meeting.

LILLA HIND, CHAIRMAN

### **Membership Committee Report**

The Membership Committee has been active in recruiting new members, by greeting visitors at regular meetings, following up with individuals whose names are suggested by members, and spreading the word about the Society at such gatherings as the Colonial Waterbird Symposium and the Speak-Out for Central Park which were held last fall.

Because the current dues for Active Members are low and the Society is in need of additional funds, the Committee is working on plans for a campaign to increase the number of Supporting and Life Memberships. The Committee is of the opinion that many members of the Society would be willing to upgrade their membership if made aware of the need.

ERNA HANSEN, CHAIRMAN

### **Conservation Committee Report**

Members of the Conservation Committee and other members of the Society took part in several meetings arranged by the Borough President of Manhattan on the future of Central Park. Members also met with the Central Park Task Force to advise them in planning the restoration of the Ramble.

Another area of concern was the proposed demolition of Shooters Island in New York Harbor to which we are opposed.

LOIS HEILBRUN

## **Great Gull Island Report**

The highlight of the spring migration on Gull Island this year was a Townsend's Warbler, called by Rikki Harrison. The bird obligingly hopped about where it could be seen by everyone before it flew into the net.

The 1978 trapping figures indicate that 87% of the Common Terns nesting on the Island are banded. In 1978 we mapped nests of marked birds in particular areas and will repeat the mapping in 1979 to compare the nesting associations with those of 1978.

We continued the study of reproductive success of Common Terns nesting on the Island.

Thanks to the contribution to the Project from the Urner Fund of the Linnaean Society, we will be able to put in permanent nest markers in 1979. These markers will help to determine which sites are used repeatedly and which are not. Once this is established, we may learn the characteristics which constitute good sites and marginal ones.

I would like to thank the individuals of the Linnaean Society who have supported the work on Gull Island. The results of the work to date have been published in 54 papers. Several more are in preparation. Your contributions have helped to produce what is probably the most thoroughly marked colony of seabirds anywhere in the world. Through observations of these marked birds, we hope to gain insight into the social structure of the colony. Through trapping in nearby colonies, we hope to learn about interchange of birds between colonies. Ten years of trapping have given us a large enough sample of marked birds to enable us to gain information by pursuing both of these avenues of research. We hope members of the Linnaean Society will continue their support and thank you again for helping to make this long-term study possible.

HELEN HAYS, DIRECTOR

## **Notes and Summary**

The Society wishes to express its gratitude to Mr. and Mrs. Richard E. Harrison for their generosity in allowing us the use of their home for Council and various Committee meetings throughout the past year.

It is with deep regret that I mention those who have died: Francis Cormier, Elizabeth MacDonald Handler, Herbert Johnson, Irving Kassoy, Richard Kuerzi, Mrs. Emanuel Raices, Robert W. Smart, Alexander Wetmore, and Leroy Wilcox.

We were pleased to elect Helen Hays and Richard Sloss as Fellows, in recognition of their distinguished service to the Society, and James G.

Greenway as an Honorary Member, in recognition of his contributions to ornithology.

The Lillian C. Stoner Award, which defrays the expenses of a qualified young student to attend the Annual Meeting of the Federation of New York State Bird Clubs was given to Linnaean member Matthew Paul Drennan. Matthew is a freshman at the University of Michigan.

Seventy-one persons were elected to active membership, three to supporting, eight to associate, two to life and one to honorary membership during the year.

Membership in all categories is: Active 455, Associate 92, Supporting 20, Life 31, Fellows 10, Honorary 5, and 2 with dual membership, totaling 615.

*Respectfully submitted,*

SHEILA MADDEN

SECRETARY

# Annual Report for the Year 1979–1980

## The Linnaean Society of New York

**A**T THE 101ST annual meeting of the Linnaean Society of New York, held on March 12, 1979, the following officers were elected:

President	Robert Paxton
Vice President	John Farrand Jr.
Secretary	Erna Hansen
Recording Secretary	Lilla Hind
Treasurer	Sheila Madden
Editor	Catherine Pessino

At the regular meeting on March 25, the Society elected the following members to serve on the Council for three years: Irving Cantor, Anthony Lauro, and Roy Leaf. Jean Dorman was elected to fill an unexpired term of one year. In October, Catherine Pessino resigned as Editor, and John Farrand Jr. was named Acting Editor.

## Meetings Report

During the year 17 regular meetings and 3 informal summer meetings were held:

13 March 1979	ANNUAL MEETING Speaker: Kenneth C. Parkes
27 March	<i>Migratory Strategy and Stopover Requirements of Shorebirds in the Fall</i> Brian Harrington
10 April	<i>A Naturalist in Manhattan</i> John Farrand Jr.
24 April	<i>The Ecology of the Coral Snake Mimicry Complex and Some Possible Avian Predators</i> Susan M. Smith



8 May	<i>Shorebird Identification</i> Thomas H. Davis Jr., assisted by Harry Darrow
22 May	<i>Mixed Species Flocks of Birds and Monkeys in Neotropical Forests</i> John W. Terborgh
11 September	<i>New Jersey's Barn Owls</i> Leonard Soucy
25 September	<i>Birds of a Colombian Ranch</i> James Munves
9 October	<i>A Birdwatcher in Senegal</i> Michel Kleinbaum
23 October	<i>The Linnaean Society's Centennial Field Trip to Churchill, Manitoba</i> Richard R. Sloss and Thomas H. Davis Jr.
13 November	<i>Studies in the Evolutionary Relationships of Owls</i> Sadie Coats
27 November	<i>Celebes: The Forest and the Rats</i> Guy G. Musser
11 December	<i>In Search of Rare Flycatchers</i> Wesley E. Lanyon
8 January 1980	MEMBERS' FIFTH ANNUAL SLIDE SHOW Moderator: Thomas H. Davis Jr.
22 January	<i>New Guinea's Birds of Paradise</i> Mary LeCroy
12 February	<i>The Landscape Geology of New York City</i> Sidney S. Horenstein
26 February	<i>Birds from Down Under</i> G. Stuart Keith

### **Field Trip Committee Report**

We scheduled 44 weekend trips, plus 5 Friday mornings in Central Park, enlisting the aid of 32 leaders and 21 registrars.

We tried a few new things this year to add a little more interest. At the suggestion of Bob Paxton, we scheduled two rugged trips: one, a full day hike from Montauk Point to Montauk and the other an overnight camping trip to Slide Mountain in the Catskills. To provide some indoor activity during the February and March doldrums, we were able to schedule two trips

behind the scenes at the Museum of Natural History, one to the Exhibit Department, the other to the Bird Department; both trips were very popular. Also, we thought a trip to the studio of one of the field guide artists would be of interest and were successful in setting this up.

For the spring migration, we have arranged a series of five early Friday morning walks in Central Park to study spring migrants. And for city dwellers who want to pursue the lure of the list, we have scheduled a Big Day by subway on 15 May.

The 22 and 30 September trips for inland hawks were canceled, and the third inland hawk trip on October 27 produced not one hawk, all due to poor weather conditions. The coastal hawk trips, on the other hand, were quite successful.

The January 5 trip to Staten Island was postponed to January 13 because of poor weather. Because Arthur Singer will be out of the country at the time we scheduled a trip to his studio, Guy Tudor graciously agreed to take his place.

We have received written or oral reports on all the trips and they have apparently been successful in producing the birds and/or experiences we intended, except for the hawk flights mentioned above. The greatest number of participants (23) was on the Assunpink trip on 1 September and the fewest at Jones Beach (8) on October 28. The average number of participants was 15. The greatest problem the registrars have encountered has been the lack of cars from Manhattan, but they have been able to arrange for public transportation to a convenient place where there have been enough cars to get to the specific birding spots.

To conclude, we must thank all the leaders for giving so graciously of their time and expertise; the registrars, especially those who took on extra trips, for their time and efforts in making the trips possible; and the owners of cars who did not wait until the last moment to volunteer transportation.

JOHN AND MARY YRIZARRY, CO-CHAIRMEN

### **Library Committee Report**

The members of the Library Committee are making a survey to determine which books should be sold at auction this spring. They would like suggestions from members regarding books to be purchased from proceeds of the sale.

The Society received generous gifts of books from the libraries of the late Francis Cormier and Dr. Locke MacKenzie.

LEE MORGAN AND HERMAN KITCHEN, CO-CHAIRMEN

### **Membership Committee Report**

President Robert Paxton and the chairman of the Membership Committee have been in touch with biology teachers in local schools in order to recruit students interested in ornithology as potential members.

MATTHEW DRENNAN, CHAIRMAN

### **Great Gull Island Project Report**

During the summer of 1979 the Gull Island Project included more people, towers, and projects than ever before! Twenty volunteers occupied the Island during May, June, and July. The tower count went from 17 to 24, with a 25th ready to go up this spring.

Independent studies were carried out by Malcolm Coulter, Chapman Fellow in the Department of Ornithology at the American Museum of Natural History; by Alison Nash, a graduate student in the Department of Psychology at Stony Brook; and by David Duffy, who was finishing his Ph.D at Princeton.

On Gull Island over 1500 nest sites were marked with numbered plastic tent stakes contributed by the Linnaean Society. The acquisition of a Boston Whaler enabled us to start an off-Island banding program on three islands west of Gull Island, as well as on islands along the Connecticut shore. Our cooperative project with Yale on Faulkners Island continued under the capable direction of Fred Sibley and Jeff Spendelow.

In August, David Duffy left the Island to be interviewed for the position of Resident Ornithologist at the Charles Darwin Research Station in the Galápagos. On January 20, 1980, his thesis finished and accepted, David left New York to take that position. We wish him luck. And he did say that he would be ready for visitors next winter!

With our expanded program in 1979 our expenses were greater than ever before and the \$2,000 contributed by members of the Linnaean Society in response to our appeal was a great help in beginning our program last spring.

Finally, I would like to thank the following members of the Linnaean Society, as well as others who played a critical role in a successful Gull Island season: Virginia Huber, who drove the truck up in the spring and who, with Joseph DiCostanzo, Nina Pierpont, and Michael, Matthew, and Timothy Male loaded and unloaded the boat; Captain John Wadsworth, who expertly yanked Virginia's thumb to put it back in position when it slipped out of joint during the unloading; Mr. and Mrs. Harvey Gaylord who provided wonderful meals, shelter, showers, and a storage area for the loading and unloading

crews; Grace and Matt Cormons who moved our newly acquired Boston Whaler to Tony Lauro's; Tony Lauro, who not only stored the Boston Whaler in his yard and contributed the insurance for the boat, but also lent the Project a truck and driver at the end of the season to bring the gear back to New York; thanks also to Erna Hansen and Margaret Clark who helped pack and load equipment when we left the Island in September and to members of the Linnaean Society who helped carry the contents of Tony's truck into the Museum last fall on the night of the 11 September Linnaean Society meeting.

HELEN HAYS, DIRECTOR

### Notes and Summary

The membership voted on December 11 to change Section 2, Article 1, of the By-Laws to read:

"The Annual Meeting shall be held during the week in March that includes the second Tuesday."

Alexander Brash, an Associate Member who is a student at Connecticut College, attended the Annual Meeting of the Federation of New York State Bird Clubs as a recipient of the Lillian C. Stoner Award.

The Society wishes to thank Mr. and Mrs. Richard Harrison for their generosity in allowing the use of their home for Council meetings.

During the year we were saddened by the deaths of four members: Charlotte DuBois, Dr. Louis Duhl, J. C. Johnson, and Roy Latham.

The Society elected 75 new members during the year, of whom 56 are Active, 13 Supporting, and 6 Associate Members. Total membership now comprises 425 Active, 96 Associate, 52 Supporting, 45 Life, 15 Fellows, and 8 Honorary Members, altogether 639, with 3 holding dual memberships.

I should like to thank those who helped me prepare and send out Membership Lists and the revised Constitution, as well as those who assisted in arranging tonight's meeting: Jean Dorman, Lois Heilbrun, Lilla Hind, Sheila Madden, Alice Oliveri, and Robert Paxton.

*Respectfully submitted,*

ERNA HANSEN  
SECRETARY

# Annual Report for the Year 1980–1981

## The Linnaean Society of New York

**A**T THE 102ND annual meeting of the Linnaean Society of New York, held on 10 March 1980 the following officers were elected:

President	Robert Paxton
Vice President	John Farrand Jr.
Secretary	Erna Hansen
Recording Secretary	Lilla Hind
Treasurer	Sheila Madden
Editor	Marc Weinberger

At the regular meeting on March 25, Joseph DiCostanzo, Stephen Chang, and Helene Tetrault were elected to serve on the Council for three years and Susan Werner for one year.

### Meetings Report

Seventeen regular and three informal summer meetings were held as follows:

10 March 1980	ANNUAL MEETING: <i>Conservation Battles: Past and Present</i> Richard H. Pough
March 30	<i>The Management of the Jamaica Bay Wildlife Refuge</i> Don Riepe
8 April	<i>The Bashakill</i> Paul Jeheber



22 April	<i>A Naturalist in Trinidad</i> Stephen C. Quinn
13 May	<i>The New York State Birding Baedeker</i> Susan Roney Drennan
27 May	<i>Bird Migration in the Middle East</i> John Bull
9 September	<i>Roger Tory Peterson: Portrait of a Birdwatcher</i> Film, Canadian Broadcasting Corporation
23 September	<i>Iceland—1980</i> Richard Sloss
14 October	<i>A Wildlife Artist in the Field</i> Albert E. Gilbert
28 October	<i>Evolution and Ecology of Lesser Antillean Flycatchers</i> Robert Eckhardt
11 November	<i>Central Park: Nature and History</i> Henry Hope Reed
25 November	<i>Guide to National Wildlife Refuges</i> Laura and William Riley
9 December	<i>Cornell's Laboratory of Ornithology</i> James Gullledge
13 January 1981	<i>Birds and Landscapes of Western Norway</i> Oyvind Gjerde
27 January	<i>Mountain Year</i> Jim Brett
10 February	<i>Adventures of a Natural History Photographer</i> Arthur Swoger
24 February	<i>The Return of the Osprey</i> Film, Michael Male

### **Field Trip Report**

We scheduled 28 field trips plus 5 early morning walks in Central Park. Because of the difficulty getting enough cars last year, fewer trips were scheduled for this year and a higher proportion were to destinations that could be reached by public transportation. Since the trips designated last year as “rugged” did not seem to attract new and younger birders as we had hoped, we did not reschedule them. We did have great success with the

“behind-the-scenes” trips to the museum, the zoo, and an artist’s studio during the quiet months last winter and so rescheduled them this year. A new destination this year will be the Long Island Pine Barrens on May 31.

We have noted a number of new field trip participants as well as a core of regulars over these past two years. This leads us to feel we have provided a program that appeals to a wide range of members. Special thanks must go to all the registrars and leaders who have been so generous with their time and special abilities.

The Field Work Committee, headed by Doug Kibbe and Tom Davis, organized volunteers to work on breeding bird surveys in the metropolitan area. Their reports will be compiled in the New York State Breeding Bird Atlas; the field work will continue for three more years.

JOHN AND MARY YRIZARRY, CO-CHAIRMEN

### **Conservation Committee Report**

The major effort this year was concerned with our opposition to the placement of Christo’s “Gates” project in Central Park. Linnaean Society members testified at public hearings and wrote letters to Mayor Koch, Parks Commissioner Gordon Davis, Central Park Administrator Betsy Barlow, and others. Our efforts were coordinated with those of other organizations such as New York City Audubon. Among those active in support of this campaign were Steve Chang, Sheila and Lewis Rosenberg, Richard Sichel, Peter Post, Sara Elliott, and Berry Baker. Our efforts were successful when, on February 25, Gordon Davis rejected the Christo project. Christo will continue his campaign, however, so we will probably be further involved.

ROBERT ARBIB, CHAIRMAN

### **Library Committee Report**

The Committee completed an inventory of the Linnaean library and the Locke Mackenzie collection of ornithological books which had been donated to the Society by Mrs. Mackenzie. Twenty-five volumes or sets were selected from the Mackenzie collection for use in the library.

The Council decided to auction some of the books from the Society’s library, as well as from the Mackenzie collection. A total of 180 lots were selected for sale.

The first part of the auction was held at Hamilton Hall, Columbia University, on February 3, 1981. An enthusiastic crowd of members purchased

124 lots for a total of \$3,023. The remaining 56 lots of books will be auctioned at a later time. Some of the income will go toward binding and repairing books in the Linnaean Society library.

HERMAN KITCHEN, CHAIRMAN

### **Editorial Report**

*Transactions IX* is at the printer and should be out shortly.

MARC WEINBERGER, EDITOR

### **Great Gull Island Project Report**

Common Terns on the Island raised more young in 1980 than at any time since work began on the Project. Over 2300 young were banded. Eight percent of the pairs on nests marked with permanent stakes returned to the same sites, according to data compiled by Elinor Conklin. These markers were contributed by the Linnaean Society.

The Birdathon was a great success, raising \$17,000 which was a substantial help with the budget. Thanks and congratulations to all who birded or sponsored or both.

In July, David Allen, a contractor on Long Island, contributed the use of a bulldozer for a day with a man to run it. The meadow areas behind the north and south beaches were cleared, and we are eager to see how many terns use these areas this spring.

The following papers reporting Great Gull Island studies have been published or accepted for publication:

Joseph DiCostanzo. *Population Dynamics of a Common Tern Colony. Journal for Field Ornithology.*

Jill Hamilton. *Roseate Wintering Recovery Records. Journal for Field Ornithology.*

Mary Windels. *Observations of a Snowy Owl on Great Gull Island. Kingbird.*

HELEN HAYS, DIRECTOR

### **Notes and Summary**

We would like to thank Mr. and Mrs. Richard E. Harrison for their hospitality in allowing the use of their home for Council meetings.

We note with sadness the deaths of five members during the past year: Charlotte Cord, Devin Garrity, Edward Maguire, Edwin Way Teale, and Barrie Wanless.

In 1980-81 the Society elected 40 Active, 13 Supporting, 2 Life, and 3 Associate Members. There are now 401 Active, 94 Supporting, 59 Life, 89 Associate, 7 Honorary Members, and 15 Fellows, making a total of 665.

I wish to thank all those who helped me during the year, particularly the following for their help with the annual dinner and meeting: Helen Hays, Lilla Hind, Sheila Madden, Florence Nixon, and Stephanie Wanless.

*Respectfully submitted,*

ERNA HANSEN  
SECRETARY

# Annual Report for the Year 1981–1982

## The Linnaean Society of New York

**A**T THE 103RD annual meeting of the Linnaean Society of New York, held on March 11, 1981, the following officers were elected:

President	John Farrand Jr.
Vice President	Susan Roney Drennan
Secretary	Roy Leaf
Recording Secretary	Herbert Baden
Treasurer	Sheila Madden
Editor	Marc Weinberger

At the regular meeting on March 24, Clare Lynch, Donald Riepe, and Mary Yrizarry were elected to serve on the Council for three years and Douglas Kibbe was elected for one year to complete Roy Leaf's term.

In September, Peter Post was elected to the Council to fill the vacancy created by the resignation of Joseph DiCostanzo. Richard E. Harrison has generously lent his home again this year for Council meetings.

### Meetings Report

Seventeen regular and three informal summer meetings were held at the American Museum of Natural History as follows:

11 March	ANNUAL MEETING: <i>The Reality of Species: From Linnaeus to Ernst Mayr</i> Stephen J. Gould
24 March	<i>Evolution of the Field Guide</i> John Yrizarry



- 14 April *Behavior of East African Barbets*  
Lester L. Short and Jennifer F. M. Horne
- 28 April *Escapes, Exotics, and Illicit Introductions*  
Richard Ryan
- 12 May *Conservation of Forest Birds of Mauritius*  
Roger Pasquier
- 26 May *Alaska Wildlife*  
Dennis Puleston
- 8 September *Common Loon Status in the Northeast*  
Scott A. Sutcliffe
- 22 September *Ecological Recovery of Mount St. Helens*  
David W. Johnston
- 13 October *Eye Movement Behavior in Birds*  
Joshua Wallman
- 27 October *Shorebirds: A Profile Incredible*  
Wayne R. Petersen
- 10 November *Bank Swallow Colony Composition*  
Valerie M. Freer
- 24 November *Teeth in Birds*  
George A. Clark Jr.
- 8 December *Range Expansion of the Tufted Titmouse in New England*  
John C. Kricher
- 12 January 1982 MEMBERS' ANNUAL SLIDE SHOW  
Moderator: Thomas H. Davis Jr.
- 26 January *Pelagic Distribution and Ecology of Marine Birds  
off the Northeastern United States*  
Kevin Powers
- 9 February *Range Expansion in Eastern House Finches, 1950-1980*  
Paul C. Mundinger
- 23 February *New York's Endangered Bird Species: Past, Present,  
and Future*  
Peter E. Nye

#### **Field Trip Committee Report**

In the year since the last Annual Meeting there were 35 field trips scheduled. Two trips were canceled because of bad weather. Most trips were of one day

duration to locations in the city or nearby. Weekend trips were made to Delmarva, Block Island, Montauk, and Cape Ann.

The program of visits to artists' studios continued with one to Don Eckelberry's home. He and Mrs. Eckelberry were very charming hosts. The early Friday mornings in Central Park during the spring migration continue to be very popular. As many as 50 people turned up for a single walk. A new destination this year was the Long Island Pine Barrens, a fragile and endangered area.

I want to express my thanks to all the registrars who worked so conscientiously to make the field trips a success. Also, the leaders deserve our deep appreciation for their readiness to give time and energy to help extend our knowledge and enjoyment of the natural world.

JEAN M. DORMAN, CHAIRMAN

### **Library Report**

The library continued to serve the reading interests of members throughout the year.

LOIS HEILBRUN, LIBRARIAN

### **Field Work Committee Report**

The Field Work Committee was revived in November 1981. Its purpose is to draw the members' attention to ongoing research projects in the New York City area in which members might wish to participate.

The Committee gathered information about Bald Eagle records for the nationwide Bald Eagle survey in January 1982. It worked with Douglas Kibbe so that as soon as information about the New York State Breeding Bird Atlas project becomes available it will be announced. It was expected that there would be possibilities for field work on Great Gull Island in the spring of 1982 and at hawk watches in the fall of 1982.

ROBERT PAXTON, CHAIRMAN

### **Editorial Report**

The ninth volume of the *Transactions of the Linnaean Society* was published in 1981. It contains invited papers presented at the Colonial Waterbird Group Symposium sponsored by the Society. The *Transactions* has been mailed to members who requested it. Copies are still available upon written request.

Attention now turns to the next volume of the Society's Proceedings.

MARC WEINBERGER, EDITOR

### **Conservation Committee Report**

Most of the activities of the Conservation Committee centered on Central Park this past year. We were consulted by the Parks Department regarding the rehabilitation of the Point in Central Park. A number of our suggestions for modifications to the rehabilitation plan were carried out. We received a letter from the Park Administrator thanking us for our support and help. Also, we were consulted by the Parks Department regarding a proposal for an artist's lighting display centered on the Reservoir. We signified our approval, subject to selecting a season during which there would be no nocturnal migration.

We have been in communication with the New York City Chapter of the National Audubon Society and have arranged a third meeting to discuss mutual interests. We also conferred with John Crowell, Director of the Forest Service, opposing his stated policy of greatly increased yield of lumber from National Forests.

During the year, the Committee consisted of Steve Chang and myself.

ROBERT ARBIB, CHAIRMAN

### **Great Gull Island Project Report**

The Great Gull Island Committee would like to thank the members of the Linnaean Society for their support of the Birdathon last spring and their contributions to the Project in both spring and fall. The Birdathon brought in \$12,000 and the fall appeal \$5,000. These sums enabled us to pay our bills and begin 1982 with a small balance.

The top three Birdathon winners for 1981 were: Tom Burke who won in the Most Species category with 146 species; Marvin Rosenfeld who had the most (42) sponsors; and Suzy Attwood, who raised \$1,366, was the winner in the Greatest Sponsor Support category.

In 1981 over 1000 more Common Terns nested on Great Gull than nested in 1980. Many of these birds came in to the newly-bulldozed areas. Some of these new nesters had been banded in previous seasons in colonies along the Connecticut shore and the eastern end of Long Island Sound.

In 1982 we will complete the fourth season of trapping adults in colonies near Great Gull Island. This project is yielding unique data on inter-colony movement, as well as on percentages of Great Gull young that may be breeding in nearby colonies. For example, of the young banded in 1972 on Great Gull Island, we have trapped over 21 percent on nests in the last nine years; 6 percent of these were found in colonies near Great Gull and 15 percent were

trapped on Great Gull. The oldest bird on the Island, a 21-year-old female, successfully raised two blond chicks with the help of her mate. We look forward to her return this season.

Thank you again for your support of the project and I hope you will all be able to do the Birdathon this spring.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

We note the death of six members this past year: Roger N. Baldwin; Howard H. Cleaves; Eugene Eisenmann, Fellow; John F. Kieran; Erik O. Petersen; Andrew B. Weir.

Of the current membership of 674, there are 79 new members this year. This is a 52 percent increase over membership in 1972. Today there are 62 Life Members and 110 Supporting Members, four times the number in these categories than as recently as 1978. Voluntary contributions at these higher levels have been an important factor in keeping dues levels unchanged for the past ten years. This has also been important in enabling the membership to remain as broadly based as possible.

I happily thank those who have so generously helped me in my duties this past year. They include: Ivy Kuspit, Secretary of the Ornithology Department at the American Museum; Dorothy Borg; Joe DiCostanzo; Alice Olivieri; Sheila Madden. Additional help at the Annual Dinner was given by Henrietta Katzev and Mary Yrizarry. And, we have Daniel Sollari of the Seventh Regiment Armory to thank for the excellent meal and arrangements.

*Respectfully submitted,*

ROY LEAF  
SECRETARY

# Annual Report for the Year 1982-1983

## The Linnaean Society of New York

AT THE 104TH annual meeting of the Linnaean Society of New York, held on March 8, 1982, the following officers were elected:

President	John Farrand Jr.
Vice President	Susan Roney Drennan
Secretary	Roy Leaf
Recording Secretary	Herbert Baden
Treasurer	Sheila Madden
Editor	Marc Weinberger

At the regular meeting on March 23, Irving Cantor, Joseph DiCostanzo, and Frank Gillette were elected to serve on the Council for three years through 1985. Florence Guild Nixon was elected at the same time to fill a vacancy through 1984. Richard E. Harrison generously lent his home again this past year for Council meetings.

### Meetings Report

During the year, 17 regular and 3 informal summer meetings were held by the Society at the American Museum of Natural History. The programs were as follows:

8 March 1982	ANNUAL MEETING: Speaker, Russell W. Peterson
23 March	<i>How Barn Owls Catch Prey by Hearing: an Update</i> Roger S. Payne
13 April	<i>Ecology of the Red-cockaded Woodpecker</i> Jerome A. Jackson



- 27 April            *The Origin of the Avifauna of Socotra Island*  
Alec Forbes-Watson
- 11 May             *Birds of Los Roques Islands, Venezuela*  
Mary LeCroy
- 25 May             *Evolution of a Bird Encyclopedia*  
John K. Terres
- 14 September     *Breeding Raptors of Northwestern Connecticut*  
Peter DeSimone
- 28 September     *Falkland Islands: Its Wildlife as I Remember It*  
Sidney Bahrt
- 12 October         *Species Diversity of the Birds of Peru*  
Victor Emanuel, Jr.
- 26 October         *Swift Trips to the Tropics (various swift species)*  
Charles T. Collins
- 9 November        *Restoring Maine Seabirds*  
Stephen W. Kress
- 23 November      *New Developments in Pigeon Navigation*  
Charles Walcott
- 14 December      *Birds of the Indian Monsoon*  
Film, narrated by Gerard A. Bertrand
- 11 January 1983   **MEMBERS' ANNUAL SLIDE SHOW**  
Moderator: Thomas H. Davis Jr.
- 25 January         *Ornithology of Kent Island and Birds in the Bay of Fundy*  
Peter F. Cannell
- 8 February         *Making Sense of Sexual Nonsense: Shorebirds on the Tundra*  
J.P. Myers
- 22 February        *Fair Isle and Its Birds* Nick J. Riddiford

### **Field Trip Committee Report**

In the year since the last Annual Meeting, there have been 37 scheduled field trips. Bad weather caused changes in two trips. The five early Friday morning walks in Central Park in April and May were again very popular. Weekend trips were made to Delmarva (22 participants) and the Long Island Pine Barrens in the spring; to Montauk in the fall and winter (14 participants each trip); and to Cape Ann (20 participants) on Thanksgiving

weekend. A three-day trip on the Columbus Day weekend (21 participants) was made to Brigantine for one night and Cape May for two nights. The species count was 112 and the leader, Richard Sloss, arranged for a very rewarding visit to a hawk-banding station near Cape May. The registrars for these trips, Erna Hansen for Delmarva and Cape May, and Alice Oliveri for Cape Ann, deserve a special "thank you" for perseverance and the extra measure of effort that made these trips possible.

The trip to Great Gull Island (31 participants) in July included an extension to Gardiner's Island. On Great Gull, Helen Hays and staff were very informative and enthusiastic guides. Mr. and Mrs. Robert Goelet were the hosts on Gardiner's Island and drove the group to various birding locales on the Island. Several members were lucky enough to spot Wild Turkeys along the road.

Also lucky was the group of 21 that went to Hook Mountain on 19 September. There were numerous kettles of Broad-winged Hawks, both near and far, over a period of several hours. According to a regular hawkwatcher at this site, that day was the best of the season.

The trip to Mongaup Reservoir and vicinity on 26 February was an exhilarating day for the 23 participants. Approximately 20 Bald Eagles, adult and immature, were seen at Roundout, Mongaup, and Rio reservoirs. In addition, about a dozen Wild Turkeys were observed.

Participation in field trips continues at a high level. Transportation was less of a problem than it has been in recent years. The setting of opening dates for registration (three weeks in advance for day trips and six weeks for overnight trips) has proven a great success.

I want to express my personal gratitude to all the registrars and leaders who have given unstinting cooperation in the two years I have been Field Trip Chairman. Working with such a dedicated group has been a pleasure. Particular mention must be made of the work done by the members of the Field Trip Committee: Dorothy Borg, Margaret Clark, Jose Machado and Harry Miller. Their help in setting up the 1982-83 schedule was invaluable.

JEAN DORMAN, CHAIRMAN

### **Editorial Report**

The next issue of the *Proceedings* is now in the planning stage. A call for papers has been issued; potential authors should be in touch with the Editor.

MARC WEINBERGER, EDITOR

### **Library Report**

Renovation work in the Museum made the library unavailable for most of the past year; however, the card catalogue has been brought up to date.

LOIS HEILBRUN, LIBRARIAN

### **Conservation Committee Report**

The Committee worked with the New York City Chapter of the National Audubon Society and other interested groups on the ongoing restoration of both Central and Prospect Parks.

JOHN FARRAND, ACTING CHAIRMAN

### **Great Gull Island Project Report**

Terns and meadow voles had a banner year in 1982 on Great Gull Island. The meadow voles, reintroduced by Drs. Koopman and Dickerman in 1981, underwent a population explosion in 1982. They devoured everything that was green, thereby creating ideal tern nesting areas. Thanks to munching *microtus*, our population of terns increased by about 1500 pairs last season, for a record total of about 7500 pairs.

Through strong participation by Linnaean members as well as others, the 1982 Birdathon brought in \$14,000. This was a tremendous help with supporting the work on Great Gull Island. Special thanks are due to those who provided the prizes: Berry Baker, Roger Pasquier, Mr. and Mrs. Robert G. Goelet and Dr. Charles Huntington. Congratulations to the Birdathon winners: Joseph DiCostanzo with 157 species, raised over \$1,300; Norman Jones with 153 species, raised over \$975; and Jay Rosenblatt with a record 72 sponsors.

You will receive an announcement shortly of all the winners, as well as information on the Birdathon we will hold in May of this year. I hope you will all help again. Results this year will go directly into the Apple III computer, acquired with funds contributed by the Linnaean Society. Thank you all again for helping to make 1982 an excellent season.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

We note the death of three members this year: Gilbert Cant, Reginald Denham, and Emilie Pentz.

Current membership stands at 680, with 65 Life Members and 114 Supporting Members. These figures are substantially the same as a year ago, but

double those of 10 years ago. Voluntary contributions of the higher membership categories, have been an important factor in keeping dues levels unchanged for the past 11 years.

I happily thank those who have so generously helped me during the last two years. They include: Ivy Kuspit, Secretary of the Ornithology Department; Dorothy Borg; Joe DiCostanzo; and Alice Oliveri. We also thank Daniel Sillari, of the Seventh Regiment Armory, for the excellent arrangements for the Annual Dinner.

*Respectfully submitted,*

ROY LEAF  
SECRETARY

# Annual Report for the Year 1983–1984

## The Linnaean Society of New York

AT THE 105TH annual meeting of the Linnaean Society of New York, held on March 7, 1983, the following officers were elected:

President	Susan Roney Drennan
Vice President	Joseph DiCostanzo
Secretary	Clare Lynch
Recording Secretary	Stephen Chang
Treasurer	Sheila Madden
Editor	Marc Weinberger

At the regular meeting on March 22, 1983, Martin King, Anthony J. Lauro, and Mary LeCroy were elected to serve on the Council for three years; Dorothy Borg and Herbert Baden were elected to fill unexpired terms on the council of one and two years, respectively.

### Meetings Report

During the year, 17 regular meetings and 3 informal summer meetings were held. The programs for the regular meetings were as follows:

7 March 1983	ANNUAL MEETING: Films: <i>The Nature Art of Robert Bateman</i> and <i>The Great Blue Heron</i>
22 March	<i>Female-Female Pairings in Colonial Waterbirds</i> Michael Conover
12 April	<i>The Hoatzin of Venezuela: Is this Bird the "Missing Link" of the Avian Realm?</i> Stuart D. Strahl



- 26 April *Seabirds of the Witless Bay Sanctuary, Newfoundland* film,  
Paul Jeheber
- 10 May *Long Island Wilderness: The Pine Barrens*, film,  
Michael Male and Judy Fieth
- 24 May *Parent-Young Auditory Communication in Mallards  
and Wood Ducks*  
David B. Miller
- 13 September *The Central Park Wildlife Survey: Incorporating Wildlife  
into the Restoration and Management of Central Park*  
John Hecklau
- 4 October SPECIAL POST-AOU CENTENNIAL WEEK MEETING:  
Films.
- 11 October *Asa Wright Nature Center and the Oilbird*  
John Moyle
- 25 October *Avian Vernaculars: An International Quagmire with  
Suggested Bridges*  
Peter Alden
- 8 November *Seabirds of the South Atlantic*  
G. Stuart Keith
- 22 November *Coastal Ospreys in the Northeast: The Ecology of a  
Recovering Population*  
Alan Poole
- 13 December *Bats: Mammals that Fly*  
Karl Koopman
- 10 January 1984 MEMBERS' ANNUAL SLIDE SHOW  
Moderator: Thomas H. Davis Jr.
- 24 January *Conservation Problems in the Galapagos*  
Malcolm Coulter
- 14 February *The Best of Europe: Birding in Spain*  
Robert S. Arbib Jr.
- 28 February *Life Lists, Evolution and Avian Systematics*  
Robert Zink

#### **Field Trip Committee Report**

There were 44 scheduled field trips since the last Annual Meeting. Of these, ten were canceled due to lack of participants or cars, bad weather, or sickness

of the leader. The average number of participants per trip was 12 and the median species count was 55. Among the highlights of the season's trips were White Pelican, Sedge Wren, Razorbill, and Little and Lesser Black-backed Gulls.

Weekend trips to Cape May and Brigantine, Block Island, Cape Ann, and three to Montauk have continued to be popular, and each has provided good birding opportunities. The annual Delmarva trip is scheduled for Memorial Day weekend. Trips to Point Pelee, Ontario, in May, and the Adirondacks, in June, are also planned. There are 35 more day trips scheduled through August 1984, including the popular Friday morning walks in Central Park during May.

The Field Trip Chairmen would like to express their grateful and heartfelt thanks to all the leaders and registrars who contributed unprecedented time and energy to make the field trips a success. Through their cooperation, good nature, and generosity a very ambitious field trip program has given pleasure to many Linnaean members.

JILL HAMILTON AND CAROLE SLATKIN, CO-CHAIRMEN

### **Conservation Committee Report**

The Committee worked with Elizabeth Barlow on that aspect of the Central Park master plan that deals with wildlife.

JOHN FARRAND, JR., CHAIRMAN

### **Editorial Report**

The Society plans annual publication of the *Transactions* with publication to begin as soon as possible. In addition, the Society has resolved that the *Proceedings* will be continued as an annual publication to be mailed out with the *Linnaean News-Letter* and to contain Society business and items of interest to members.

MARC WEINBERGER, EDITOR

### **Field Work Committee Report**

Interested members were notified of field work projects in the New York City area. One of the main field projects in which members are now involved is the ongoing New York State Breeding Bird Atlas.

DOUG FALK, CHAIRMAN

### **Great Gull Island Project Report**

The introduced vole, *Microtus pennsylvanicus* did an excellent job in clearing vegetation; over 5000 Common Terns nested on the Island in 1983.

I would like to thank especially all of those who helped with the Birdathon, which brought in a total of \$14,500, the most since the Birdathon's first year. This sum was an essential ingredient for a successful field season and made it possible to complete it in the black. I would also like to thank Berry Baker and Roger Pasquier, Society members who contributed prizes for the Birdathon. These incentives make a tremendous difference in the participation. I would like to remind all that there will be another Great Gull Island Birdathon held on the weekend of 12-13 May 1984, in which we hope all members of the Society will participate. Additionally, for those of you interested in the effects of the introduction of *Microtus pennsylvanicus* on Great Gull Island, the May issue of Natural History magazine will have an article in which, among other things, the results to date are summarized.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

During the past year, we were saddened to learn of the death of two members: George Rose and Miriam Rowell.

In 1983-1984, the Society admitted 58 Active, 4 Supporting, 1 Life, and 6 Associate Members. The Society's total membership is now 682 members.

Two new committees were proposed: one to represent the Society at the American Ornithologists' Union and the other to create a Linnaean Field Card.

*Respectfully submitted,*  
KATHARINE A. RAY

# Annual Report for the Year 1984–1985

## The Linnaean Society of New York

**A**T THE 106TH annual meeting of the Linnaean Society of New York, held on March 12, 1984, the following officers were elected:

President	Susan Roney Drennan
Vice President	Joseph DiCostanzo
Secretary	Clare Lynch
Recording Secretary	Stephen Chang
Treasurer	Martin King
Editor	Marc Weinberger

At the regular meeting on March 27, 1984, Parker Cane, Douglas Falk, and Katharine Ray were elected to serve on the Council for three years; Sheila Madden was elected to fill an unexpired two-year term.

### Meetings Report

During the year, 17 regular meetings and 3 informal summer meetings were held. The programs for the regular meetings were as follows:

12 March 1984	ANNUAL MEETING: <i>Wildlife in the Bering Sea</i> Joseph J. Hickey
27 March	<i>Studies of Juncos</i> George F. Barrowclough
10 April	<i>Biogeography of the Fauna of Asia and Australia</i> Allan Keast
24 April	<i>A Mid-summer's Goosling: A Tale of Arctic Research</i> Robert Rockwell

- 8 May *Some Reflections on Animal Communication*  
Colin Beer
- 22 May *The Evolution of Hummingbird Plumage*  
Robert Bleiweiss
- 11 September *The Return of the Osprey*, film,  
Michael Male and Judy Fieth
- 25 September *Life History Studies of New York State Fish*  
C. Lavett Smith
- 9 October *Migrant Birds in Belize: the Return of the Natives*  
John C. Kricher
- 23 October *Natural History of Cumberland Island National Seashore*  
Don Riepe
- 13 November *Whales in the Bay of Fundy, or How to Find Mr. Right*  
Scott Kraus
- 27 November *Birding Opportunities in Belize*  
D. Scott Wood
- 11 December *Variability in the Dendroica coronata Complex: A Review*  
Anthony J. Lauro
- 8 January 1985 MEMBERS' ANNUAL SLIDE SHOW  
Moderator: Tom Davis
- 22 January *The Language of Birds*  
Jeffrey Boswall
- 12 February *Great Gull Island, 1984*  
Helen Hays
- 26 February *Ecology and Behavior of Amazonian Woodcreepers*  
Nina Pierpont

The Eugene Eisenmann Medal, awarded for excellence in ornithology and encouragement of the amateur, was presented to Joseph J. Hickey at the annual meeting on March 12 1984.

#### **Field Trip Committee Report**

Since the last Annual Meeting, 68 trips have been scheduled. An average of 11 members participated in each trip. Highlights of the trips included a Western Grebe and a Red Fox at Montauk, Parasitic Jaegers seen from Robert Moses State Park, a Snowy Owl and three alcid species at Cape Ann,



Lapland Longspurs at Hempstead Lake and Jones Beach, and 1473 Broadwings at Hook Mountain. A four-day trip to Point Pelee, Ontario, was very popular and will be repeated this year.

The Field Trip Co-chairmen would like to express their appreciation to all the leaders and registrars who so generously volunteered their time, making the field trips rewarding for all of the participants over the past two years.

JILL HAMILTON AND CAROLE SLATKIN, CO-CHAIRMEN

### **Great Gull Island Project Report**

Special thanks to Birdathon participants who raised over \$16,000. This was a tremendous help in supporting our 1984 field season.

In 1984 more birds nested on Great Gull Island than in any previous year. We trapped 3181 pairs and banded over 7000 young. Immigrants included birds from Maine and Maryland. The *microtus* population is doing well and, we anticipate, will have cleared much of the Island this winter.

We anticipate another good field season in 1985 and I would like to thank Linnaean members once again for their support of the Gull Island Project.

HELEN HAYS, DIRECTOR

### **Notes**

During the past year, we were saddened to learn of the deaths of five members: Elinor B. Buchholz, Paula N. Goldwasser, Priscilla Hiss, Anne S. Jessup, and Walter Sedwitz.

*Respectfully submitted,*

KATHERINE A. RAY  
SECRETARY-ELECT

# Annual Report for the Year 1985–1986

## The Linnaean Society of New York

AT THE 107TH annual meeting of the Linnaean Society of New York, held on March 11, 1985, the following officers were elected:

President	Joseph DiCostanzo
Vice President	W. Parker Cane
Secretary	Katharine A. Ray
Recording Secretary	Ann Shaw
Treasurer	Florence Nixon
Editor	Anthony J. Lauro

At the regular meeting on March 26, 1985, Lois Gebhardt, Pieter Prall, and Carole Slatkin were elected to serve on the Council for three years; David Freund and Clare Lynch were elected to fill unexpired terms on the Council of one and two years, respectively.

### Meetings Report

During the year, 17 regular meetings, 1 special meeting, and 3 informal summer meetings were held. The programs for the regular meetings and the special meeting were as follows:

11 March 1985	ANNUAL MEETING: <i>Another Penguin Summer</i> Olin Sewall Pettingill, Jr.
19 March	<i>Sexual Imprinting in Zebra Finches</i> Klaus Immelman
26 March	<i>Inland Freshwater Fish of New York State</i> C. Lavett Smith

- 9 April *Studies of Oporornis Warblers*  
Jay Pitocchelli
- 23 April *The Behavioral Ecology of Mixed-Species Flocks in Amazonian Peru*  
Charles Munn
- 14 May *The Identification of Northeastern Shorebirds*  
Thomas H. Davis Jr.
- 28 May *Social Behavior of the Giant Brazilian Otter*  
Martha Munn
- 10 September *Seabird Identification*  
Ron Naveen
- 24 September *Conservation of Migratory Birds in the Neotropics*  
Roger Pasquier
- 8 October *Groundwater Levels and Vegetation in Nassau County*  
Jess Hanks
- 22 October *Removal Experiments on Black-capped Chickadee Flock-switchers*  
Susan M. Smith
- 12 November *Conserving Bird Species Through Captive Breeding*  
Christine Sheppard
- 26 November *Color Phases in Hawks—Accidents or Adaptations?*  
Dean Amadon
- 10 December *Terns in the Gulf of Maine—The Re-emergence of Petit Manan Island*  
Matthew P. Drennan
- 14 January 1986 MEMBERS' ANNUAL SLIDE SHOW  
Moderator: Thomas H. Davis Jr.
- 28 January *Genes, Behavior, and Legs*  
Mary C. McKittrick
- 11 February *Island in the Clouds - Study of a Mountain Archipelago*  
Robert W. Dickerman
- 25 February *A Review of Hybrid North American Wood Warblers*  
Kenneth C. Parkes

The Eugene Eisenmann Medal, awarded for excellence in ornithology and encouragement of the amateur, was presented to Dr. Olin Sewall Pettingill Jr. at the annual meeting on March 11, 1985.

### **Field Trip Committee Report**

We scheduled 54 field trips since the last Annual Meeting. Of these, 5 were canceled due to bad weather or illness of the leader. The average number of participants per trip was 12 and the average species count was 56. There are 28 more field trips scheduled through August 1986.

Among the highlights of the season's trips were Black-headed Gull, Yellow-throated Warbler, Halley's Comet, and approximately 150 South American flycatchers seen at Guy Tudor's studio.

The Field Trip Chairman expresses his thanks to all of the leaders, registrars, and committee members who so generously contributed their time and energy to make the field trips a success.

JOHN WALSH, CHAIRMAN

### **Great Gull Island Project Report**

Over 10,000 Common Terns and about 1500 Roseate Terns nested on Great Gull Island in 1985. This is the highest count for nesting Common Terns that we have had since beginning the Project.

Last season's work was supported to a large extent by Birdathon contributions totalling \$16,561.65. This is the highest Birdathon total to date. I take this opportunity to thank all who participated, making it possible to work on Gull Island another season. These birders, in addition to Norman Jones, raised over \$1,000: Joseph DiCostanzo \$1,350; Mary LeCroy \$1,161; and Michael Harwood \$1,052. Finally, without all the prizes, the Birdathon would probably never have gotten off the ground. Thanks to Mr. and Mrs. Robert B. Goelet, Berry Baker, and Roger Pasquier, we have incentives to continue the Birdathon, and we'll look forward to seeing you the weekend of 17-18 May this spring!

For further details, please see the Linnaean News-Letter, Vol. XXXIX, No. 6, November 1985.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

During the past year, we were saddened to learn of the deaths of six members: Dr. Jean Delacour, Honorary Member; George H. Hallett Jr.; Marianna Neighbor; Theodore Pettit; Nancy Russ; and Cecile Schreffler.

In 1985-1986, the Society elected 51 new members: 3 Supporting Members, 47 Active Members, and 1 Associate. There are now 683 members of the Linnaean Society, including 3 who are both Honorary Members and Fellows, 3 Honorary Members, 12 Fellows, 74 Life Members, 96 Supporting Members, 446 Active Members, and 49 Associates.

*Respectfully submitted,*

KATHARINE A. RAY

SECRETARY



# Annual Report for the Year 1986–1987

## The Linnaean Society of New York

AT THE 108TH annual meeting of the Linnaean Society of New York, held on March 10, 1986, the following officers were elected:

President	Joseph DiCostanzo
Vice President	W. Parker Cane
Secretary	Katharine A. Ray
Recording Secretary	Ann Shaw
Treasurer	Florence Nixon
Editor	Anthony J. Lauro

At the regular meeting on March 25, 1986, David Freund, Arthur Morris, and John Walsh were elected to serve on the Council for three years.

### Meetings Report

During the year, 17 regular meetings and 3 informal summer meetings were held. The programs for the regular meetings were as follows:

10 March 1986	ANNUAL REPORT: <i>Birding with R. T. P. Around the World</i> Roger Tory Peterson
25 March	<i>Last Chance for the Ivory-billed Woodpecker: Cuba</i> Lester Short
8 April	<i>Reconstructing Avian Phylogeny from DNA Comparisons</i> Charles G. Sibley
22 April	<i>The Role of Interspecific Aggression in Structuring the Amazonian Bird Community</i> John Terborgh
13 May	<i>Halley's Comet</i> Thomas Lesser

- 27 May *Recording Avian Sound in the Galapagos Islands*  
James L. Gullede
- 9 September *Hummingbirds, Flowers, and Energy*  
Frank B. Gill
- 23 September *An Ecological Perspective of the Salamanders of the  
Mt. Rogers National Recreation Area of Virginia*  
James A. Organ
- 14 October *West China Ornithological Expedition*  
Ben King
- 28 October *Habitat Selection in American Oystercatchers*  
Brooke Lauro
- 11 November *Researching Relationships among Birds: Strategies  
and Strata*  
Wesley E. Lanyon
- 25 November *Treefall Gaps: 'Hotspots' of Growth and Diversity in  
Tropical Forests*  
Nicholas V. L. Brokaw
- 9 December *The Evolution of the Suboscine Passerine Birds*  
Robert J. Raikow
- 13 January 1987 MEMBERS' ANNUAL SLIDE SHOW  
Moderator: Arthur Morris
- 27 January *Condor*  
National Audubon Society film
- 10 February *Food, Foraging, and Fighting in a Guild of  
Insectivorous Birds*  
Erick Greene
- 24 February *Least Terns, Piping Plovers, Short-eared Owls, and  
Northern Harriers: Threatened Species on Nantucket Island*  
Nan Jenks-Jay

The Eugene Eisenmann Medal, awarded for excellence in ornithology and encouragement of the amateur, was presented to Roger Tory Peterson at the annual meeting on March 10, 1986.

#### **Field Trip Committee Report**

We scheduled 50 field trips since the last Annual Meeting. Of these, 6 were canceled due to lack of participants or indisposition of the trip leader. The

average number of participants per trip was 10 and the average species count was 53. There are 25 more field trips scheduled through August 1987.

Among the highlights of the season's trips were King Eider, Glaucous Gull (adult), Bald Eagle, Snowy Owl, Common Raven, Connecticut Warbler, Harbor Seal, and Fringed Gentian.

The Field Trip Committee Chairman expresses his thanks to the leaders, registrars, and committee members who so generously contributed their time and talents to make the field trip season a success.

JOHN WALSH, CHAIRMAN

### **Great Gull Island Project Report**

Having worked in the Great Gull Island colony for 17 years, we now have the greatest concentration of individually marked birds anywhere in the world. Over 90 percent of the 8000 adults trapped this year had been banded previously. The number of pairs trapped has increased every year peaking at 3930 this year. And a record 9000 young were banded in 1986.

Thank you to all who birded and/or participated in the Great Gull Island Birdathon this year. To date, \$16,400 has come in, a little over the amount received by this time last year.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

During the past year, we were saddened to learn of the deaths of eight members: Mrs. Earl Bergendahl; Ambrose Cort Jr.; Thomas H. Davis Jr., Fellow; Lawrence Grinnell, Life Member; Eugene Kinkead; Genevieve Lord; Eugene Mudge; Farida Wiley, Fellow.

In 1986-1987, the Society elected 38 new members: 2 Supporting Members, 34 Active Members, and 2 Associates. There are now 727 members of the Linnaean Society, including 3 who are both Honorary Members and Fellows, 3 Honorary Members, 10 Fellows, 74 Life Members, 96 Supporting Members, 483 Active Members, and 58 Associates.

The Secretary would like to thank Sheila Madden, who kindly volunteered to take care of all the last minute arrangements for the Annual Meeting. Thanks are also due Ann Shaw for reading the abbreviated version of this report at that meeting.

*Respectfully submitted,*  
KATHARINE A. RAY  
SECRETARY

# Annual Report for the Year 1987-1988

## The Linnaean Society of New York

AT THE 109TH annual meeting of the Linnaean Society, held on March 9, 1987, the following officers were elected:

President	W. Parker Cane
Vice President	Clare Lynch
Secretary	John Walsh
Recording Secretary	Jill Hamilton
Treasurer	Florence Guild Nixon
Editor	Anthony J. Lauro

At the regular meeting on March 24, 1987, Richard Cech, Tony Leukering, and Starr Saphir were elected to serve on the Council for three years; Kathleen Howley was elected to fill an unexpired term of two years. At the regular meeting on December 8, 1987, Karl Koopman was elected to fill an unexpired term of two years and three months.

### Meetings Report

During the year 17 regular meetings and 3 informal summer meetings were held. The programs for the regular meetings were as follows:

9 March 1987	ANNUAL MEETING: Speaker, Chandler S. Robbins
24 March	<i>Ivory-bills in Cuba, Barbets in Africa</i> Lester L. Short
14 April	<i>Common Butterflies of New York City</i> Guy Tudor
28 April	<i>Bird Watching, Natural History, and Science; What are the Connections?</i> Peter F. Cannell
12 May	<i>Patagonian Birds: Mountaineers at Sea Level</i> François Vuilleumier

- 26 May *Plumes, Postures, and Pops: Courtship Dances of the Neotropical Manakins*  
Richard Prum
- 8 September *Historical Biogeography of Birds*  
Joel Cracraft
- 22 September *Function of song in the White-throated Sparrow*  
Frederick Wasserman
- 13 October *Loons and Learning*  
Judy McIntyre
- 27 October *Whales and Seabirds of Long Island Waters*  
Sam Sadove
- 10 November *Of Woodland, Songbirds, and the Use of our Land*  
Charles Smith
- 24 November *Birding in Prehistoric Wyoming and Montana*  
Peter Houde
- 8 December *Contrasting Styles of Song Development and their consequences among Passerine Birds*  
Donald Kroodsma
- 12 January 1988 MEMBERS' ANNUAL SLIDE SHOW  
Moderator: Arthur Morris
- 26 January *The Nature Conservancy in New York State*  
Michael Laspia
- 9 February *Research on Migratory Birds: a Potpourri of Studies at the Patuxent Wildlife Research Center*  
R. Michael Erwin
- 23 February *The Breeding Biology of Long Island Harriers*  
Marilyn England

The Eugene Eisenmann Medal, awarded for excellence in ornithology and encouragement of the amateur, was presented to Dr. Chandler S. Robbins at the annual meeting on March 9, 1987.

#### **Field Trip Committee Report**

There were 41 field trips scheduled since the last Annual Meeting. There are 20 more field trips scheduled through August 1988.

Among the highlights of the season's trips were: a Wood Duck and a Parasitic Jaeger which were seen within a half-mile and five minutes of each



other on the Chesapeake Bay Bridge and Tunnel, Sandwich Tern, Atlantic Puffin, Brown-headed Nuthatch, Swainson's Warbler, Yellow-headed Blackbird, and a male Pipevine Swallowtail feeding on Beebalm.

The Committee Chairman expresses his thanks to the leaders, registrars, and committee members who so generously contributed their time and talents to make this field trip season a success.

RICHARD CECI, ACTING CHAIRMAN

### **Great Gull Island Project Report**

Last season on Great Gull Island an excellent crew trapped 4980 pairs of Common Terns, the best sampling ever. One of the birds trapped was a 25 year old bird banded by Gil Raynor on Long Island. This bird, as well as the 25 year old trapped in 1986, hold the longevity records for the species.

Congratulations and thanks to all of you who birded or sponsored the 1987 Great Gull Island Birdathon. This year the Birdathon raised \$20,184 (\$19,240 in donations and \$944 in matching funds), more by a good margin than any previous Birdathon.

Thank you all again for your support. A full report will appear in the next *Linnaean News-Letter*.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

During the past year the Society was saddened to learn of the deaths of 11 of its members: Robert Arbib Jr., Fellow and past President; Henry Easton; Ettie Erikson; Louis Goldman; Lois Heilbrun, Fellow and past President; Marjorie Noppel; Katharine O'Hare; Alice Oliveri, Fellow; Helen Ossa; Joshua Sterling; Carol Woesner; and Floyd Wolfarth.

In 1987-1988 the Society elected 33 new members. There are now 709 members of the Linnaean Society, including 3 who are Honorary Members and Fellows; 3 Honorary Members; 8 Fellows; 75 Life Members; 96 Supporting Members; 470 Active Members; and 54 Associates.

The President and Secretary thank Sheila Madden who volunteered to make the arrangements for the Annual Meeting.

*Respectfully submitted,*

JOHN WALSH

SECRETARY

# *Annual Meeting for the Year 1988–1989*

## **The Linnaean Society of New York**

**A**T THE 110TH annual meeting of the Linnaean Society of New York, held on March 14, 1988, the following officers were elected:

President	W. Parker Cane
Vice President	Clare Lynch
Secretary	John Walsh
Recording Secretary	Jill Hamilton
Treasurer	Florence Guild Nixon
Editor	Katherine Ray

At the regular meeting on March 22, 1987, Berry Baker, Dale Dancis, and David Kunstler were elected to serve on the Council for three years.

### **Meetings Report**

During the year 17 regular meetings were held. The programs for the regular meetings were as follows:

14 March 1988	ANNUAL MEETING
22 March	<i>The Instinct to Learn: Bird Song</i> Peter Marler
12 April	<i>The Natural History of the North American Beaver: Food Selection and Foraging Strategy</i> Peter Busher
26 April	<i>Heron Colonies of New York City</i> Katharine Parsons

- 10 May *Darwin's Finches*  
Peter Grant
- 24 May *The Identification and Aging of Southbound Migrant  
Shorebirds of the New York City Region*  
Arthur Morris
- 13 September *Climate Disruption and You*  
Peter Myers
- 27 September *Fear and Loathing and Foraging Ecology of Warblers  
and Sparrows*  
Russell Greenberg
- 11 October *Snow Geese and Detente: A Study of Snow Geese that Breed  
on Wrangel Island, NE Siberia, and Winter in North America*  
William Sladen
- 25 October Film: *Delaware Bay Banquet*  
Judy Fieth and Michael Male
- 8 November *The Nesting Ecology of Merlins in Denali Park,  
Alaska*  
Ken Parkes
- 22 November *Distributional Ecology of Amphibians and Reptiles  
of Southeast New England*  
Michael Klemens
- 13 December *Breeding Biology and Conservation of the Bahama  
Amazon Parrot*  
Rosemarie Gnam
- 10 January 1989 MEMBERS' ANNUAL SLIDE SHOW  
Moderator: Arthur Morris
- 24 January *Warbler Migration from the Warbler's Point of View*  
Kenn Kaufman
- 14 February *The Herons of Clark's Island, Plymouth, MA:  
A Ten Year Perspective*  
Ted Davis
- 28 February *Ecology and Empire: Environmental Changes in  
Colonial New England*  
William Cronon

**Field Trip Committee Report**

From March 27, 1988 through March 5, 1989, 37 trips were scheduled of which 4 were cancelled. From April 1989 through August 1989, an additional 20 trips have been scheduled.

From March 27, 1988 through March 5, 1989, the average number of participants attending each field trip was 13, and the average number of species seen on each field trip was 51. The total number of participants was 430.

KATHLEEN HOWLEY, CHAIR

*[N.B: No further information was available for 1988-89.]*

# Annual Report for the Year 1989–1990

## The Linnaean Society of New York

AT THE 111TH annual meeting of the Linnaean Society of New York, held on March 6, 1989, the following officers were elected:

President	Richard Cech
Vice President	John Farrand, Jr.
Secretary	Jill Hamilton
Recording Secretary	Fred Baumgarten
Treasurer	Florence Guild Nixon
Editor	Katherine Ray

At the regular meeting of March 28, Kate Kleber, Helen Tetrault and Stephanie Wanless were elected to three-year terms on the Council, and John Walsh was elected to fill Fred Baumgarten's unexpired term. Starr Saphir resigned from the Council in November, and Kathleen Howley was elected to fill her unexpired term.

### Meetings Report

6 March 1989	ANNUAL MEETING: <i>Once Upon an Island</i> Helen Hays
28 March	<i>The Pine Barrens</i> Karl Anderson
11 April	<i>Hot Shots and Hot Spots: The Evolution of Lek Behavior</i> Mercedes Foster
25 April	<i>Women in Bird Watching</i> Joseph Kastner
9 May	<i>The Etymology of Bird Names</i> John Farrand



29 May	<i>Another Silent Spring: Forest Fragmentation and the Decline of Eastern Song Birds</i> David Wilcove
13 June	informal summer meeting with Robert Villani
18 July	informal summer meeting with Richard Cech
15 August	informal summer meeting with Arthur Morris
12 September	<i>Female Choice and the Evolution of Guppy Color</i> Anne Houde
26 September	<i>Butterflies and Moths of the New York City Region</i> Don Riepe
10 October	<i>Birds, Ticks and Lyme Disease</i> Jay Pitocchelli
24 October	<i>Recent Developments in the AOU Checklist</i> Burt L. Monroe, Jr.
14 November	<i>Bird Management in the U.S.S.R.</i> Noble Proctor
28 November	<i>Those Ghastly Gulls: Identification Skills Workshop</i>
12 December	<i>Atlasing and Amateur Field Work in Ornithology</i> Charles Smith
9 January, 1990	MEMBERS ANNUAL SLIDE SHOW Moderator: Arthur Morris
23 January	<i>Birds of New Guinea</i> Mary LeCroy
13 February	<i>Hurricanes, Birds and Berries: Sunken Forest, Fire Island</i> Alexander Brash
27 February	<i>South African Seabirds: Stalking the Southern Oscillation</i> David Duffy

The Eugene Eisenmann Medal, awarded for excellence in ornithology and encouragement of the amateur, was presented to Helen Hays, Director of the Great Gull Island Project, by Stuart Keith at the annual meeting on March 6, 1989.

Half-century awards were presented or sent to John Bull, Harry Darrow, Malcolm Jacobson, Elizabeth Manning, Hustace Poor, Walton Sabin, and Walter Spofford.

### **Field Trip Committee Report**

From April 15, 1989 through March 10, 1990, 40 trips were scheduled of which 4 were cancelled. From March 24, 1990 through August 1990, an additional 20 trips have been scheduled.

Among highlights of the 1989-1990 season were Ruff (Fredericktown), Monk Parakeet (Greenwood Cemetery where it has bred), a tree full of Rose-breasted Grosbeaks (feeding after a rainstorm), Brown Pelican (Delmarva), immature Yellow-crowned Night-Heron in its nest (Jamaica Bay), Gray-cheeked Thrush (Robert Moses State Park) and American Bittern (Shinnecock).

From April 15, 1989 through March 10, 1990, the average number of participants attending each field trip was 12, and the average number of species seen on each field trip was 50. The approximate number of total participants was 446.

KATHLEEN HOWLEY, CHAIR

### **Conservation Committee Report**

The following is a brief review of conservation issues in the metropolitan area undertaken by the committee in 1989-90.

In October, written testimony was submitted on behalf of the Linnaean and American Littoral Societies and New York City Butterfly Club for a public hearing on the proposed massive development on David's Island off New Rochelle in Long Island Sound. Planned are a 2/3-mile-long bridge to the island, 2000 luxury condo units rising 31 stories, a helipad and an 800-slip marina. Objections or concerns dealt with (1) aesthetics, (2) demise of the island's biota, (3) destruction of the rare "marine rocky intertidal" community, (4) proximity of the project to the large Huckleberry Island waterbird rookery, (5) effects of 500,000 more gallons of sewage daily on Long Island Sound's wildlife. The Coast Guard approved the final Environmental Impact Statement in January but this year should prove critical to the project.

We supported the designation of Jamaica Bay as a Critical Environmental Area by the New York State Department of Environmental Conservation. This would add a degree of protection to the bay from surrounding urbanization.

A meeting was held with the director of the Jamaica Bay Wildlife Refuge to discuss questionable management practices there.

The committee commented on the draft of the New York State Depart-

ment of Environmental Conservation's *Preliminary Assessment of Wildlife Management Needs*. We supported these efforts to develop a management policy for all wildlife. A condensed version of our comments follows:

- Since *Wildlife Management Needs* treats single species and species groups, the proposed management results in an incoherent mosaic of different habitat types. The maintenance or restoration of the presettlement communities at a given site should tend to get first priority. Protection of major examples of New York's rare and common natural communities needs high priority. Strong policies should aim at reducing habitat fragmentation, which was downplayed in the document. DEC programs to establish non-native species or non-local stock in new areas should be curtailed.
- Special attention should be given to the Imperial Moth, recently rediscovered in New York.
- Upgraded status should be given to some of the fauna on the Endangered Species list.
- Control of some gull and starling populations should be undertaken.
- The cowbird should be treated as an undesirable species.
- Many reptiles and amphibians should receive legal protection.
- A state herpetological survey should be instituted.
- A start should be made toward wolf reintroduction.
- Rare plants should be considered in management planning.

New York City Parks and Recreation is having its biggest Earth Day celebration at Pelham Bay Park on April 21. This environmental fair will focus on the land and wildlife with boat rides, a shoreline cleanup, live music and a host of environmental and nature groups presenting exhibits, live animals and nature walks. New York City Parks requested the Linnaean Society to come up with its own permanent wildlife photo display for the occasion and preparations are now underway.

Most of these efforts are still ongoing and members are urged to bring their concerns to the committee.

DAVID S. KUNSTLER, CHAIR

### **Great Gull Island Project Report**

I would like to take this opportunity to thank all of you who helped with the Birdathon and those who responded to the fall appeal. Your efforts brought

in \$29,000, a sum which proved the mainstay of the Great Gull Island budget for 1989. Thanks you all! You will receive a report of the 1989 season in the April News-Letter. Suffice it to say here that we banded over 5,200 pairs in 1989, a new record which we hope to better in the coming season.

We are looking forward to a bigger and better Birdathon on May 12-13. More on this shortly.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

The Society is saddened to note the passing of Laura Goldman, Richard Kenly, Richard L. Phunkett, and Christopher McKeever.

As of December 1, 1989, the Linnaean Society had 642 members. Of these, 82 are Life Members, 10 are Fellows or Honorary Members, 69 are Sustaining, 73 are Associate, and 408 are Active. 35 new members, all active, have been added since the last annual meeting.

*Respectfully submitted,*

JILL HAMILTON,

SECRETARY

# Annual Report for the Year 1990–1991

## The Linnaean Society of New York

AT THE 112TH annual meeting of the Linnaean Society of New York, held on March 12, 1990, the following officers were elected:

President	Richard Cech
Vice President	John Farrand, Jr.
Secretary	Jill Hamilton
Recording Secretary	Frederick Baumgarten
Treasurer	Florence Guild Nixon
Editor	Katherine Ray

At the regular meeting of March 27, Henry Erikson, Deslie Lawrence and Peter Joost were elected to three-year terms on the Council. Later, to fill unexpected vacancies in the position of Vice President and Recording Secretary, Jill Hamilton was elected Vice President, Peter Joost was elected secretary, and Griffin Littel was elected to the position of Recording Secretary. Kathleen Howley was elected to fill the unexpired term of Peter Joost.

### Meetings Report

- 12 March 1990 ANNUAL MEETING: *Adventures with Saskatchewan Owls*  
Dr. Stuart Houston
- 27 March *Seashells of the New York City Area*  
Richard Kelly
- 10 April *Those Thirty Shorebirds: Identification Skills Series*  
Claudia Wilds
- 24 April *International Conservation Strategies for Migrant Shorebirds*  
Laurie Hunter
- 8 May *Those Terrible Tyrants: Identification Skills Series*  
Kenn Kaufman

22 May	<i>Field Identification Wrap-up</i>
11 September	<i>New York Harbor Herons</i> Michael Male and Judith Fieth
25 September	<i>Radiotelemetry Studies of the Black Rail in Arizona</i> William R. Eddleman
9 October	<i>From Columbus to Castro: The Development of Natural History in the Caribbean Basin</i> Michael Smith
23 October	<i>Raptor Population Dynamics from Christmas Bird Count Data</i> Gregory Butcher
13 November	<i>Liberian Bats</i> Karl Koopman
27 November	<i>Wood Storks of East-central Georgia</i> Malcolm Coulter
11 December	<i>The Purple Martin Way to Colonial Breeding</i> Eugene Morton
8 January 1991	14TH ANNUAL MEMBERS' SLIDE SHOW Arthur Morris, moderator
22 January	<i>Local Trends in Bird Abundance</i> (members' forum)
12 February	<i>The Many Mysteries of Bird Navigation</i> Charles Wolcott
26 February	<i>Wildlife of Patagonia, Drake's Passage and Antarctica</i> Peter Alden

A half-century award was presented to Irving Cantor who regaled us with his experiences as a Linnaean member and New York birder.

Dr. Stuart Houston was awarded the Eisenmann medal.

### **Field Trip Committee's Report**

From March 24, 1990 through March 8, 1991, 39 trips were scheduled of which 2 were cancelled. From March 23 through August of this year, an additional 20 trips are scheduled.

Among the highlights of these trips were Black-backed Woodpecker, Gray Jay and Lincoln's Sparrow (Adirondacks); Pileated Woodpecker and Barred Owl (Assunpink); Least Bittern (Jamaica Bay 7/21); red phase of



Eastern Screech Owl, 5 Barn Owls, 28 Red-tailed Hawks (Staten Island); Black-billed Magpie, Razorbills, 2nd winter Iceland Gull, Northern Shrike and 14 subadult King Eiders (Montauk); 11 Bald Eagles including 4 age groups from 1st year to full adult (Mongaup & Rio Reservoirs).

From March 24, 1990 through March 9, 1991, the average number of participants attending each field trip was 14, and the average number of species seen on each trip was 52. The approximate number of total participants was 507.

KATHLEEN HOWLEY, CHAIR

### **Library Committee Report**

The committee has been cataloguing the library with the intent of modernizing the collection through new acquisitions. The council has authorized the expenditure of funds to further this goal. The committee thanks Berry Baker and Newbridge Communications for their generous donations of books on ornithology and other natural history topics. The chair thanks as well the members of the committee, Dale Dancis, Kate Kleber, and Joe DiCostanzo for their work during the past year.

JOHN WALSH, CHAIR

### **Conservation Committee Report**

Last year, the Society was involved in several conservation activities. The first of these was an Earth Day booth at Pelham Bay Park. Later, the Society joined an *ad hoc* coalition to work to save one of Long Island Sound's few remaining undeveloped areas, David's Island and the society continues to monitor the situation there. Finally, the Linnaean Society took the lead in organizing the Jamaica Bay Environmental Coalition, a group that consists of representatives from local environmental groups as well as groups involved in environmental education. The combined membership of the ten organizations presently involved exceeds 25,000, and brings together groups and individuals who have been working separately for many years to represent the best interests of the Bay. The Coalition has begun a dialogue with the management of the Gateway National Recreation Area in shaping land-use decisions that will affect the Bay. It has been an exciting start with a positive response from management but proposed development plans for Floyd Bennett may create pointed debate.

DAVID KUNSTLER, CHAIR

### **Great Gull Island Committee**

The committee is looking forward to the coming Birdathon. Thanks to Berry Baker for donating as prizes the following volumes:

Sibley & Monroe: *Distribution and Taxonomy of Birds of the World*

Gorman: *The Total Penguin*

Burton: *Bird Flight*

Jonsgaard: *Hawks, Eagles and Falcons*

Gill: *Ornithology*

These are all well worth winning. We look forward to your joining us on May 18-19 for the Great Gull Island Birdathon. A detailed account of recent Gull Island doings is contained in the February *Linnaean News-Letter*.

HELEN HAYS, DIRECTOR

### **Treasurer's Report**

In the course of the year society dues were raised in each of the categories. This represents the first increase in more than five years and has been a necessary measure to keep abreast of living increases.

FLORENCE NIXON, TREASURER

### **Notes and Summary**

The Society is saddened to record the passing of Nikko Tinbergen, Arthur Singer, Manuel Arias, Irwin Alperin, and Francis File.

At the moment, the Society has 638 members. Of these, 93 are in the life or honorary category. There have been five new members who have joined in the past year.

*Respectfully submitted,*

PETER JOOST,

SECRETARY

# Annual Report for the Year 1991–1992

## The Linnaean Society of New York

AT THE 113TH annual meeting held March 11, 1991, the following officers were elected:

President	Jill Hamilton
Vice President	Peter Joost
Secretary	Berry Baker
Recording Secretary	Norman Ford
Treasurer	Kathleen Howley
Editor	Katherine Ray

### Meetings Report

During the year, 17 regular meetings and three informal summer meetings were held. The programs for our regular meetings were as follows:

- 11 March 1991 ANNUAL MEETING: *Recollections of a Bermudian Birder*  
David B. Wingate
- 26 March *Syntax and Semantics of Animal Communication Systems*  
Colin Beer
- 9 April *Southern Continents—Bird Comparisons*  
Allan Keast
- 23 April *White-eyed Vireo in a Gumbo-Limbo Tree*  
Russell Greenberg
- 14 May *Breeding Ecology of Sympatric Oystercatchers on  
Furneaux Island, Australia*  
Brooke Lauro
- 28 May *Metabolic Restrictions on the Winter Ranges of Select Passerines*  
Terry Root
- 10 September *Recent Explorations of Venezuelan Tepuis*  
Maureen Donnelly

24 September	<i>Of Hummingbirds, Eskimos, and Sugar: The Physiological Ecology of Sugar Preferences</i> Carlos Martinez del Rio
8 October	<i>Owls of North America</i> Julio de la Torre
22 October	<i>Ravens in Winter</i> Bernd Heinrich
12 November	<i>An Overview of American Bird Distribution</i> Paul Lehman
26 November	<i>Conservation Biology and the Spotted Owl</i> George Barrowclough
10 December	<i>Zoos and Birds</i> Dick Ryan
14 January 1992	15TH ANNUAL MEMBERS' SLIDE SHOW Moderator: Arthur Morris
28 January	<i>Mysteries of Migration</i> Jack Connor
11 February	<i>Birding, Conservation and Parasitism</i> Paul Kerlinger
25 February	<i>The Purple Martin and Parasitism</i> James Hill

The Eugene Eisenmann Medal, awarded for excellence in ornithology and encouragement of the amateur, was presented to Dr. David B. Wingate at the annual meeting on March 11, 1991.

### **Field Trips Committee Report**

During the past twelve months, 39 field trips took place including four weekend trips. These trips covered areas from north of Cape Ann south to Cape May.

Among the highlights were an unusually late King Eider in May at Cape May; nesting Cerulean and Hooded Warblers at Iona Island; Ruff at Jamaica Bay; several Snowy Owls at Cape Ann and Liberty State Park, New Jersey. Most recently a Henslow's Sparrow surprised and delighted field trippers at New Jersey's Overpeck State Park.

Trips average 20 participants each. There were 22 trip leaders and 23 registrars who volunteered their time to organize these trips. Thanks to all who made the field trip program so worthwhile and exciting this past year.

DALE DANCIS, CHAIR

### **Conservation Committee Report**

Council member Karl Koopman represented the Linnaean Society at the meetings of the International Council for Bird Preservation.

The Society was represented by the Conservation Committee on issues concerning the New York City parks, the Jamaica Bay Wildlife Refuge and David's Island.

Members with conservation issues which they think should be of concern to the Society should get in touch with the Conservation Committee to call these issues to our attention.

ALEXANDER BRASH, CHAIR

### **Editorial Committee Report**

Plans are underway to publish *Proceedings Number 74* and *Transactions X*.

The *Proceedings*, covering the years from 1977-78 on, will include a paper entitled "Golden-winged Warblers in Northwestern New Jersey" by Robert L. Scully and a bibliography of the works of Eugene Eisenmann.

*Transactions X* will consist of a monograph on the *Birds of the Southern Pacific Lowlands of Guatemala* by Robert W. Dickerman. The committee also plans to publish a *Bibliography of the Birds of Peru* by Manuel Plenge.

Special thanks are extended to Georges Dremeaux who has generously agreed to illustrate the upcoming *Proceedings* and *Transactions*.

KATHERINE A. RAY, CHAIR

### **Library Committee Report**

The library is open before the start of every regular meeting.

Fifty books have been added to the library during the past twelve months. The Society has also added subscriptions to several periodicals including *British Birds*. Plans are being made to send a catalog of the library to the membership.

The committee thanks Berry Baker and Newbridge Communications, Inc., and Joe DiCostanzo for their generous contributions to the library. The Chair also thanks committee members Dale Dancis, Joe DiCostanzo, Henry Erickson, Kate Keber, and Helene Tetrault for their efforts in the year past.

### **Great Gull Island Project Report**

A grant was received from the Bernice Balfour Foundation to expand the area for Roseate Terns on Great Gull Island.

There are opportunities for volunteers to participate in the project on

weekends beginning at the end of April and continuing to the end of May. All are invited to join the Great Gull Island team to work on Roseate houses.

Thanks are extended to all who have participated in the Great Gull Island Birdathons in the past and in the one coming up on May 16th and 17th.

HELEN HAYS, DIRECTOR

**Notes and Summary**

The Society is saddened to note the passing of Cyrus Austin, Frank N. Gillette, Alma A. Graef, Peter Tozzi, Jr., and William H. Wilkens.

During the year, 47 persons were elected to membership. The Society now has a total of 542 members of whom 91 are Life or Honorary members.

*Respectfully submitted,*

BERRY BAKER

SECRETARY



# Annual Report for the Year 1992–1993

## The Linnaean Society of New York

**A**T THE 114TH annual meeting of the Linnaean Society of New York, held on March 10, 1992, the following officers were elected:

President	Jill Hamilton
Vice President	Peter Joost
Secretary	Berry Baker
Recording Secretary	Norman Ford
Treasurer	Kathleen Howley
Editor	Katharine Ray

At the regular meeting of March 24, Patricia Craig, Julio de la Torre and Stephanie Wanless were elected to three-year terms on the Council. At the regular meeting of April 24, Estelle Symons was elected to fill an unexpired term of 1 year on the Council.

## Meetings Report

- 10 March 1992 ANNUAL MEETING: *Western Hemisphere Shorebird Migration and the Reserve Network*  
Brian Harrington
- 24 March *The Value of Habitat*  
Marilyn England
- 14 April *Honey Guide and Honey Guiding*  
Lester Short
- 28 April *Introduction to the Long Island Pine Barrens*  
John Cryan
- 12 May *Bird Art and Artists: Some Opinionated Views*  
James Coe

- 26 May *Hawk Mountain in East Africa: A Program for Conservation*  
James Brett
- 8 September *Art and Science on the Western Frontier:  
The Life and Times of John Cassin*  
Robert Peck
- 22 September *Sibling Species of Nomadic Birds: North American  
Red Crossbills*  
Jeffrey Groth
- 13 October *Reordering of the AOU Checklist to Incorporate Sibley/Monroe*  
Burt Monroe
- 27 October *Ecology and Evolution of the Birds of Paradise*  
Bruce M. Beehler
- 10 November *Bird Books and Bird Art*  
Roger Pasquier
- 24 November *Seabirds of North America: An Ecological Perspective*  
Richard Cech
- 8 December *Historical Ecology of Hudson River Fishes*  
C. Lavett Smith
- 12 January 1993 15TH ANNUAL MEMBERS' SLIDE SHOW  
Moderator: Peter Post
- 26 January *Malaysian Pheasants Breeding Program*  
Donald Bruning
- 9 February *Birding Italy*  
Louis Bevier and Fred Purnell
- 23 February *Steppe Birds of Patagonia: Evolution in a  
Uniform Environment*  
François Vuilleumier

#### **Field Trips Committee Report**

In the past year, 37 field trips were offered with the following highlights:

- |                                 |                        |
|---------------------------------|------------------------|
| Chincoteague, May, 1992:        | Little Egret, Garganey |
| Jamaica Bay, October:           | Eastern Bluebirds      |
| Hook Mountain, October:         | Bald Eagle             |
| Greenwich Point Park, November: | Gray Kingbird          |
| Reed Sanctuary, November:       | Clay-colored Sparrow   |

Cape Ann, January 1993:

Barrow's Goldeneye pair up close,  
Eastern Screech Owl

Montauk, March 1993:

drake King Eider, Razorbills,  
Common Black-headed Gull and  
Iceland Gull (at a King Kullen  
Supermarket attracted by a loaf  
of Wonderbread)

Thanks to the 27 leaders and 21 registrars who volunteered their time to make this a successful field trips year.

DALE DANCIS, CHAIR

### **Conservation Committee Report**

Karl Koopman continues to represent the Linnaean Society and to report to the Council on the meetings of the International Council for Bird Preservation.

Of the greatest importance was the passage of legislation, which we strongly supported, prohibiting the sale of wild birds in the United States. This should considerably decrease the trade in rare and exotic birds.

We also actively protested the large-scale slaughter of Laughing Gulls at John F. Kennedy Airport. While the officials debate how the gulls and the airplanes may coexist, we have suggested to them that indiscriminate shooting is not an appropriate solution. As it stands now, the courts have ordered the Port Authority to prepare an Environmental Impact Statement.

Past Linnaean President Richard Cech continues to monitor the Jamaica Bay Wildlife Refuge, alerting us to possible negative developments at that site. Presidential nominee Peter Joost is monitoring New York City's proposal for waterfront development and the potential impact on migrating birds.

ALEXANDER BRASH, CHAIR

### **Library Committee Report**

The library was open to all prior to meetings in the Linder Auditorium at the Museum. We added *British Birds* to the other periodicals regularly made available to members. I also would like to thank Norman Ford and Joe DiCostanzo for their efforts this past year.

JOHN WALSH, CHAIR

### **Great Gull Island Project Report**

The activities of the past year on Great Gull Island were reported in detail in the October 1992, *Linnaean News-Letter*.

I would like to thank all who responded to the recent appeal and I hope that lots of you will help with the Birdathon coming up in May. I also thank Berry Baker and Newbridge Communications for the generous donations of Birdathon prizes.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

The Society is saddened to note the passing of Maria Clayton, a member since 1977, and Ralph Friedman, a Life Member who was with the Society for over 70 years having joined in 1921.

During the year, 28 persons were elected to membership. The Society now has 336 Active Members, 25 Supporting Members, 78 Associate Members and 95 Life or Honorary Members for a total of 514 members.

The Secretary would like to offer special thanks to Kathleen Howley and Stephanie Wanless who helped with the annual meeting. Additional thanks are due to Peter Joost, Norman Ford, Jill Hamilton and Patricia Craig.

*Respectfully submitted,*

BERRY BAKER,  
SECRETARY

# Annual Report for the Year 1993–1994

## The Linnaean Society of New York

AT THE 115TH annual meeting of the Linnaean Society of New York, held on March 9, 1993, the following officers were elected:

President	Peter Joost
Vice President	Julio de la Torre
Secretary	Norman Ford
Recording Secretary	Patricia Craig
Treasurer	Kathleen Howley
Editor	Richard Cech

At a regular meeting subsequent to the annual meeting, Florence G. Nixon and Eric Salzman were elected to fill unexpired Council seats for the period through March 1995. Berry Baker, Mary LeCroy and John Walsh were also subsequently elected to fill Council positions for terms ending in March 1996.

### Meetings Report

9 March 1993	ANNUAL MEETING: <i>The Birds From Down Under</i> G. Stuart Keith
23 March	<i>Conservation of Migratory Birds</i> Robert Askins
13 April	<i>What You Should Know About Lyme Disease</i> Louis Sorkin
27 April	<i>The Five Senses in Birds</i> Charles Leck
11 May	<i>The Birds of Connecticut</i> Dwight Smith and Arnold Devine

- 25 May *Butterflies of the Northeast*  
Jeff Glassberg
- 14 September *The Appalachian Highlands: Danbury, Connecticut to Reading, Pennsylvania*  
Pieter Prall
- 28 September *Rails: Mysterious Skulkers of the Marsh*  
William Burt
- 12 October *Migration Patterns in the Lesser Antilles*  
Allan Keith
- 26 October *Condors and Other Birds on the Edge*  
John McNeely
- 9 November *Myiarchus Flycatchers Revisited: Adventures in Evolutionary Biology*  
Wesley E. Lanyon
- 23 November *Rhode Island Birds*  
Richard Ferren
- 14 December *A Bird's-eye View of Peru*  
Frank Gallo
- 11 January 1994 *Techniques of Bird Photography*  
Russ Kinne
- 25 January *About the Bronx, Naturally: A Photographic Essay of Pelham Bay*  
Robert De Candido
- 8 February 16TH ANNUAL MEMBERS' SLIDE SHOW  
Moderator: Peter Post
- 22 February *Lechuguilla: Wonders of the Underworld*  
Emily Mobley

The Eugene Eisenmann Medal, awarded for excellence in ornithology and encouragement of the amateur, was presented to G. Stuart Keith at the annual meeting on March 19, 1993.

### **Field Trips Committee Report**

During the past year, 40 field trips were scheduled covering an area north to Cape Ann, Massachusetts, south to Bombay Hook, Delaware.

The season began auspiciously with a weekend trip which included a



Lapland Longspur at Jones Beach and a Razorbill, Common Black-headed Gull and Iceland Gull at Montauk Point. An October weekend trip to Cape May produced close looks at an Eared Grebe off Cape May Point near Bunker Pond. In November, two Rufous Hummingbirds were seen at Wave Hill in the Bronx and, on the same trip, a Tufted Duck in Rye, N.Y.

In spite of adverse conditions, this year's Cape Ann trip produced Red-necked Grebe, Razorbills, a Guillemot and, at a feeder in Holliston, Massachusetts, a Varied Thrush.

The bad weather continued throughout the months of January and February, making local birding difficult. However, intrepid birders on an icy trip to Pelham Bay were treated to a nesting pair of Great Horned Owls and a lovely look at a Long-eared Owl. On the last trip of the season to Point Lookout, Harlequin Ducks and a flock of 50+ Redpolls were spotted.

An outstanding July trip to Ward Pound Ridge produced over 30 species of butterflies including 5 species of hairstreaks. In addition, 16 species of dragonflies were identified including blue pirate, ruby toper and a common amberwing.

Other highlights for the 1993-94 season included Kentucky, Hooded, Cerulean, Mourning and Connecticut Warblers and Yellow-breasted Chat, Vesper, Grasshopper, Sharp-tailed, Seaside, Lincoln's and Clay-colored Sparrows, Golden Plover, Buff-breasted and Baird's Sandpipers.

This extensive field trip program would not have been possible without the support of the 24 leaders and 23 registrars who volunteered their valuable time setting up and leading these trips.

DALE DANCIS AND ESTELLE SYMONS, CO-CHAIRS

### **Conservation Committee Report**

During the past year, the Conservation Committee hosted a gathering of New York City conservationists so that we might assemble a set of conservation issues and priorities for the forthcoming year.

The Society, through the graces of Dr. Karl Koopman, attends the meetings of the International Council for Bird Preservation. Dr. Koopman keeps the Council and the membership informed about these meetings which provide the Society with an update on the international scene.

The Society remains an active member of the Jamaica Bay Environmental Coalition and continues to monitor the slaughter of Laughing Gulls at John F. Kennedy Airport.

ALEXANDER BRASH, CHAIR

### **Library Committee Report**

The library was open to all prior to meetings in the Linder Auditorium at the Museum.

Thanks to Joe DiCostanzo and Norman Ford for their efforts in helping to make the library available to members this past year.

JOHN WALSH, CHAIR

### **Great Gull Island Project Report**

This year's work at Great Gull Island is reported in detail in the December 1993 issue of the *Linnaean News-Letter*.

I want to thank all who contributed at year-end, as well as those who participated in the annual Birdathon which was held to benefit the Great Gull Island Project. All members of the Society are invited to participate in the upcoming Birdathon scheduled on May 14 and 15.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

We were saddened to learn of the deaths of Bertha Brenner, John Furmann, Richard E. Harrison, Joseph Hickey, and Jean Malley.

During the year, 25 persons were elected to membership in the Society which currently includes a total of 503 members.

I would like to thank the annual meeting team which included the entire Council but most especially Berry Baker, Kathleen Howley and Julio de la Torre. Many thanks also to John Yrizarry for contributing three extraordinary original paintings to the second annual raffle.

*Respectfully submitted,*

NORMAN FORD,  
SECRETARY

# Annual Report for the Year 1994–1995

## The Linnaean Society of New York

AT THE 116TH annual meeting of the Linnaean Society of New York, held on March 8, 1994, the following officers were elected:

President	Peter Joost
Vice President	Julio de la Torre
Secretary	Norman Ford
Recording Secretary	Patricia Craig
Treasurer	Kathleen Howley
Editor	Jill Hamilton

At a regular meeting subsequent to the annual meeting, Stephanie Wanless was elected to fill an unexpired term on the Council for the period through March 1995. Philip J. Dempsey, Victoria H. Irwin and Marie Winn were elected to serve Council terms until March 1997. Richard Rabkin was elected to fill the unexpired term of Recording Secretary.

### Meetings Report

8 March 1994	ANNUAL MEETING: <i>The Dinosaur Ancestry of Birds</i> John Ostrom
22 March	<i>The Five Senses in Birds</i> Charles Leck
12 April	<i>Ornithology in Western Russia and the Baltic</i> Yefim Kats
26 April	<i>Biology and Conservation of the Larger Macaws</i> Charles Munn
10 May	<i>Uncommon Behavior of Common Herps</i> Thomas Tynning

24 May	<i>The Hudson River</i> Robert Boyle
13 September	<i>Bird Conservation in Perspective: Can We Save the Birds?</i> Roland Clement
27 September	<i>Comparative Views of Gull Behavior</i> Colin Beer
11 October	<i>Farewell to Midway</i> Claudia Wilds
25 October	<i>Winter Birds: An Advanced I.D. Workshop</i>
8 November	<i>The Florida Burrowing Owl</i> Saul Frank
22 November	<i>A Dixie Sprite in Yankeeland: The Blue-Gray Gnatcatcher</i> Walter Ellison
13 December	<i>Some Pieces of the Bird Migration Puzzle</i> Kenneth Able
10 January, 1995	<i>Changes in Massachusetts Bird Populations</i> Wayne Petersen
24 January	<i>A Bird Walk With Music</i> Eric Salzman
14 February	17TH ANNUAL MEMBERS' SLIDE SHOW Moderator: Peter Post
28 February	<i>The Snake that Ate Guam</i> Marc Jaffe

### **Field Trip Committee Report**

In 1994-95, the Linnaean Society Field Trip program offered 50 trips to a variety of places on the East Coast from Cape Ann to Cape May and the Delmarva Peninsula. These included days trips as far south as Salem County, N.J. and as local as Central Park. New trips to the schedule included the Beaver Brook Watershed in Morris County, N.J., Westmorland State Park and Pine Island.

Outstanding birds seen on our outings included a Parasitic Jaeger off Barnegat Inlet and a Sedge Wren seen at Overpeck State Park. Our Cape Ann trip, which boasted wonderful weather, began with sightings of a Northern Shrike, a Dovekie and Black-legged Kittiwakes; as we stood without jackets at Andrews Point, we saw several Razorbills.

A late January trip originally scheduled for the New Jersey shore was suddenly changed when a Northern Lapwing was spotted in the Bridgehampton area. Although this was the day of the worst snowstorm of the year, we were successful in finding the bird and the Sandhill Crane that had been frequenting the area as well.

Once again the field trip chairpeople would like to extend their sincere thanks to the many leaders who offer their time and expertise in the field to make the field trips outstanding. We would also like to thank the many registrars who spend hours of their time on the telephone making arrangements for all of the trips to run smoothly.

DALE DANCIS AND ESTELLE SYMONS, CO-CHAIRS

### **Conservation Committee Report**

During the past year, the Society has continued to participate in and support the Jamaica Bay Environmental Coalition.

The Society is a member of the International Council for Bird Preservation. Our representative, Dr. Karl Koopman, regularly attends their meetings and keeps the Council and its members updated on the international scene.

The Council has recently written a letter to the Italian authorities protesting the slaughter of migrating raptors and other birds and opposing proposals to open protected areas in Italy to hunting.

The Council has reviewed projects planned by the Central Park Conservancy and has communicated its opinions and suggestions in the interest of attempting to provide for and preserve existing ecological conditions.

Finally, the Society continues to monitor the slaughter of the Laughing Gulls at John F. Kennedy Airport.

ALEXANDER BRASH, CHAIR

### **Editorial Committee Report**

Manuel Plenge has just submitted the final draft of his bibliography of Peruvian ornithology. It now includes all references to papers published through the end of 1994, and has been revised as requested, by Julio de la Torre, who edited and reviewed this bibliography during 1992. It should be ready for publication by the end of this spring as *Transactions Volume X*.

Work on *Proceedings Number 74* continues. Eugene Eisenmann's bibliography has been compiled by Mary LeCroy and her assistant for inclusion in this volume. Robert Scully's paper on the interaction between Golden-

winged and Blue-winged Warblers in Northwestern New Jersey will also be included.

Katie Ray is continuing to work with Robert Dickerman on his monograph on the birds of Guatemala which will be published as *Transactions Volume XI*.

JILL HAMILTON, EDITOR

### **Library Committee Report**

The Library has been open to all prior to meetings in the Lindner Auditorium of the Museum. Thanks to Joe DiCostanzo and others for their efforts in helping to make the library available to members this past year.

JOHN WALSH, CHAIR

### **Great Gull Island Project Report**

The year at Great Gull has been reported in detail in the December 1994 issue of the *Linnaean News-Letter*.

We wish to thank all who contributed at year end, as well as those who participated in the annual Birdathon which was held to benefit the Great Gull Island Project. All members of the Society are invited to participate in the upcoming 1995 Birdathon scheduled for May 13 and 14.

HELEN HAYS, DIRECTOR

### **Notes and Summary**

Thanks to the annual meeting team which included the entire Council but most especially to Berry Baker. Also many thanks to Peter Coe for contributing a set of signed official proof editions from his Eastern bird guide for the third annual raffle.

We were saddened to learn of the deaths of several members this year: Dr. Lee Cohen of Long Beach, California, a member since 1979; Mrs. J. P. Chapen, Columbus, Ohio, a member since 1966; Alfred Eynon, Verona, N.J., a member since 1937; John Farrand, Jr, past President of the Society and a member since 1973; Allen Thomas, Holly Hill, Florida, a member since 1933; and José R. Machado of New York City, a member since 1968.

This past year, 22 persons were elected to membership.

*Respectfully submitted,*  
NORMAN FORD,  
SECRETARY



# Annual Report for the Year 1995–1996

## The Linnaean Society of New York

AT THE 117TH annual meeting of the Linnaean Society of New York, held on March 7, 1995, the following officers were elected:

President	Julio de la Torre
Vice President	Victoria H. Irwin
Secretary	Richard Rabkin
Recording Secretary	Philip J. Dempsey
Treasurer	Kathleen Howley
Editor	Eric Salzman

At a regular meeting subsequent to the annual meeting, Ellen Kornhauser and Karl F. Koopman were elected to fill unexpired terms on the Council until March, 1997. Alexander Brash, Anthony Collerton, and Patricia Craig were elected to the Council until March, 1998.

### Meetings Report

7 March, 1995	ANNUAL MEETING: <i>The Birds of South America</i> Robert Ridgely and Guy Tudor
28 March	<i>Darwin's Finches</i> Peter Grant
11 April	<i>An Update on North American Owls</i> Julio de la Torre
25 April	<i>Birding in Venezuela (and Other Exotic Venues)</i> Starr Saphir
9 May	<i>Adventures in Arctic Siberia</i> Peter Post

- 23 May *Birds of Prey of the Northeast: An Intimate View*  
Donna Lakin Tracy
- 12 September *Birds as Art? On the Road with Arthur Morris*  
Arthur Morris
- 26 September *Desperately Seeking Roseates*  
Helen Hays and Joe DiCostanzo
- 10 October *Restoring Endangered Seabirds: Lessons from  
Puffins, Petrels and Terns*  
Stephen W. Kress
- 24 October *Creating the New Field Guide to African Wildlife*  
Peter Alden
- 14 November *Human Evolution and How We Interpret It*  
Ian Tattersall
- 28 November *Marshland Birds*  
Michael Male and Judy Fieth
- 12 December *Falcon's Return*  
Heinz Meng
- 9 January, 1996 *Birds of the Oceans*  
Richard Cech
- 23 January *Costa Rican Birdalogue*  
Ken Rosenberg
- 13 February *16th Annual Members' Slide Show*  
Peter Post, moderator
- 27 February *Veracruz, Mexico: River of Raptors*  
Laurie Goodrich

### **Field Trip Committee Report**

This past year, Linnaean Society weekend trips included Montauk, Dismal Swamp, Cape May, Cape Ann, and a winter trip to the Delmarva Peninsula. Day trip locations included favorite places around New York City and New Jersey. This year, for the first time, the Society conducted joint field trips with the Urban Park Rangers of the New York City Parks Department to a number of city parkland sites.

Birds sighted during field trips included: Northern Lapwing, Sandhill Crane, Eurasian Wigeon and Lark Sparrow (Shinnecock and environs and Montauk trips of February and March, 1995); Swainson's Warbler and

Red-cockaded Woodpecker (Dismal Swamp trip in May, 1995); Smith's Longspur (Island Beach Park, October, 1995); Avocets, King Eider and Parasitic Jaegers (Brigantine and Barnegat, November, 1995); Dovekie, Razorbills, Guillemots and a Common Murre (Cape Ann, January, 1996); and a Painted Bunting (Delmarva, February, 1996).

As usual, there were trips that had to be cancelled or rescheduled due to the combination of stormy weather and lack of transportation but, on the whole, this was another successful season. We would like to express our thanks to the outstanding leaders and many registrars who volunteered their time to arrange and lead a wonderful variety of trips.

DALE DANCIS AND ESTELLE SYMONS, CO-CHAIRS

### **Editorial Committee Report**

The Editorial Committee is pleased to report that, after an absence of many years, the Linnaean imprint will again appear on new publications. PROCEEDING NO. 74, the first since 1977, is ready for the printer. This volume contains a memoir by Charles Sibley about his pioneering work in Mexico with the hybridization of the red-eyed (Spotted and Collared) towhees, a paper by Robert Scully on sympatric populations of Blue-wing and Golden-wing Warblers in northern New Jersey, a bibliography of the writings of Eugene Eisenmann by Mary LeCroy and Sheila Walker, an up-to-date financial statement, and 19 years of secretary's reports about the activities of the Society.

Manuel Plenge's monumental *Bibliography of the Birds of Peru* is in its final editing stages. The *Checklist of the Birds of New York City* has been revised and will also go to the printer shortly as a joint project with New York City Audubon. Several other projects are in various states of development and it appears that the publications program of the Society has indeed come back to life.

ERIC SALZMAN, CHAIR

### **Library Committee Report**

The Library Committee gratefully acknowledges the generous bequest of the natural history library of our late vice-president, Berry Baker. These 400 volumes will allow us to update the Society library. Duplicates and older books will be auctioned to the membership.

The Chairman expresses his thanks to Herman Kitchen for assessing the bequest and to Mr. Kitchen and Scott Baker for packing the books. Thanks

also to Philip Dempsey and Peter Joost for transporting the books to a storage facility and to Richard Cech, Victoria Irwin and Marie Winn for their help. Pieter Prall has graciously offered to design a bookplate to commemorate Berry's gift.

The Committee also acknowledges the bequest of books from the Estate of our late Fellow and past President, Richard Edes Harrison.

In addition, the Committee wishes to thank Committee members Dale Dancis and Joseph DiCostanzo for their assistance in opening the Library before regular meetings.

JOHN B. WALSH, CHAIR

### Notes and Summary

The Society is saddened to report the deaths of three of its members. Berry Baker was a very active member of the Society, served as its Vice President as well as Secretary and was a member of the governing Council for a number of terms; we will miss her. James M. Hartshorne was a Life Member who joined the Society in 1954. Dr. Walter R. Spofford was a member of the Society since 1939; in recent years, many of us visited Dr. and Mrs. Spofford at their home in Portal, Arizona.

Currently there are 504 members in the Society. The breakdown of membership is as follows:

79	Life Members
10	Fellows and Honorary Members
37	Supporting Members
311	Active Members
67	Associate Members

*Respectfully submitted,*

RICHARD RABKIN,

SECRETARY

# *Treasurer's Report*

## *1995*

<b>Fund Balance as of 12/31/94</b>	<b>\$ 57,684.28</b>
<b>1995 Income</b>	
Dues	\$ 9,660.00
Contributions	786.00
Field Cards-Patches	95.35
News-Letter Subscriptions	20.00
Interest	2,463.26
<b>TOTAL INCOME</b>	<b>13,024.61</b>
<b>1994 Disbursements</b>	
Affiliation Exp.	450.00
AMNH Meetings/Speakers' Exp.	6,482.14
Annual Dinner	
Expenses	3,467.78
Income	3,320.00
	147.78
Eisenmann Expense	126.00
Library/Publications	403.18
Postage, Stationery	1,955.70
Miscellaneous	147.43
News-Letter Mailing/Postage	1,173.59
News-Letter Printing	1,400.85
Sched. Events/Membership List	1,015.04
Urner Fund	250.00
<b>TOTAL DISBURSEMENTS</b>	<b>13,551.71</b>
<b>Net Expenditures Over Income</b>	<b>(527.10)</b>
<b>Fund Balance as of December 31, 1995</b>	<b>\$ 57,157.18</b>

1995 FINANCIAL REPORT *Continued*

<b>General Fund balance 12/31/94</b>	\$ 22,203.29
Deficit	\$ (527.10)
Eisenmann Fund	(550.00)
Urner Fund	175.00
Library Expense	396.18
Life Membership	(500.00)
Interest due other Funds	(775.93)
<b>New Changes to General Fund</b>	(1,781.85)
<b>General Fund balance 12/31/95</b>	\$ 20,421.44
<b>Publications Fund 12/31/94</b>	\$ 3,176.24
Interest	135.48
	3,311.72
<b>Urner Fund 12/31/94</b>	955.53
Expense	(250.00)
Contribution	75.00
Interest	39.41
	819.94
<b>Eisenmann Fund 12/31/94</b>	2,603.76
Expense	(126.00)
Contribution	676.00
Interest	110.85
	3,264.61
<b>Library Fund 2/31/94</b>	11,071.00
Library Exp.	(396.18)
Interest	470.48
	11,145.33
<b>Life Membership Fund 12/31/94</b>	17,167.00
Receipts	500.00
	17,667.00



1995 FINANCIAL REPORT *Continued*

Tom Davis Memorial Fund 12/31/94	507.43
Interest	19.71
	527.14
<b>Total Funds' Balances as of 12/31/95</b>	<b>\$ 57,157.18</b>

**Composition of Assets**

Independence Savings Bk. - Checking	\$ 2,831.92
Independence Savings Bk. - Money Market	14,130.73
Independence Savings Bk. - Cert. of Dep.	24,636.85
Independence Savings Bk. - Cert. of Dep.	14,758.84
Receivables in Transit	798.84
	<b>\$ 57,157.18</b>

*Respectfully submitted,*

KATHLEEN HOWLEY, TREASURER

*N.B.: Treasurer's Reports for the Society from 1977 through 1994 are on file and available for inspection.*

# *In Memoriam*

## *1977-1995*

**T**HE EDITOR REQUESTS that corrections, additions, reminiscences or further information about deceased members of the Society be communicated to him for a future issue of the PROCEEDINGS.

Irwin M. Alperin  
Robert S. Arbib, Jr.  
Manuel Arias  
Cyrus Austin  
Berry Baker  
Roger Nash Baldwin  
Mrs. Earl Bergendahl  
James Bond  
Bertha Brenner  
Elinor B. Buchholz  
Gilbert B. Cant  
Mrs. James P. Chapin  
Maria Clayton  
Howard H. Cleaves  
Dr. Lee Cohen  
Charlotte Cord  
Francis Cormier  
Ambrose Cort, Jr.  
Orville Crowder  
Thomas H. Davis, Jr.  
Charlotte Dubois  
Dr. Jean Delacour  
Reginald Denham  
Dr. Louis Duhl  
Henry J. Easton  
Dr. Eugene Eisenmann  
Ettie Erikson  
Dr. Alfred E. Eynon  
John Farrand, Jr.  
Francis File  
Ralph Friedmann  
Dr. John B. Fuhrmann  
Devin Adair Garrity  
Frank N. Gillette  
Laura Goldman

Louis Goldman  
Paula N. Goldwasser  
Alma A. Graef  
Lawrence I. Grinnell  
George H. Hallett, Jr.  
Elizabeth Macdonald Handler  
Richard Edes Harrison  
Lois Hussey Heilbrun  
Dr. Joseph Hickey  
Alger Hiss  
Priscilla Hiss  
Mrs. John W. Jenkins  
Anne S. Jessup  
Herbert Axel Johnson  
J. C. Johnson  
Irving Kassoy  
Richard Kenly  
John F. Kieran  
Eugene Kinkead  
Richard G. Kuerzi  
Roy Latham  
Genevieve Lord  
Edward J. Maguire  
Jose A. Machado, Jr.  
Dr. Locke Mackenzie  
Jean E. Mailey  
Christopher K. McKeever  
Eugene T. Mudge  
Marianna Neighbor  
Marjorie Noppel  
Katharine R. O'Hare  
Alice Oliveri  
Helen Ossa  
E. Pentz  
Erik O. Petersen

Roger Tory Peterson  
Theodore S. Pettit  
William H. Phelps, Jr.  
Dr. Oliverio Pinto  
Richard L. Plunkett  
Mrs. Emanuel E. Raices  
Gilbert Raynor  
Marie Reith  
Charles H. Rogers  
George Rose  
Miriam L. Rowell  
Nancy Russ  
Dr. Finn Salomonsen  
Cecile Schreffler  
Walter W. Sedwitz  
Arthur B. Singer  
Robert W. Smart  
Dr. Walter R. Spofford  
Joshua Sterling  
Gardner D. Stout  
Edwin Way Teale  
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# *Constitution and By-Laws of The Linnaean Society of New York*

*as amended February, 1978, December, 1979  
and May, 1983*

## **CONSTITUTION**

### **Section 1. General Organization**

Article 1. This Society shall be composed primarily of persons living in the New York City area who are interested in the natural sciences.

Article 2. It shall consist of Life, Supporting, Active, Associate and Honorary Members, Benefactors and Fellows.

Article 3. Only Active, Supporting and Life Members, Benefactors and Fellows shall be entitled to vote, to hold office, to serve on the Council, and to transact business. Associate Members and Honorary Members, in addition to the foregoing classes of members, may attend meetings, serve on committees and take part in the scientific discussions of the Society; but Associate and Honorary members shall not be entitled to serve on committees dealing with the business or organizational affairs of the Society, nor shall they be chairmen of committees or entitled to vote as members of committees. All members not in arrears of dues shall be entitled to receive without charge the various publications of the Society issued during the period of membership unless the Council shall otherwise provide on the basis of cost or class of membership.

Article 4. The officers of the Society, who shall be elected annually, shall be a President, a Vice-President, a Secretary, a Recording Secretary, a Treasurer, and an Editor. With the exception of the Treasurer and Editor no officer shall hold the same office more than two consecutive full terms, but shall again be eligible for election one year after the expiration of a second consecutive term. The officers, together with nine members at large, shall form

a board called the Council which shall manage the Society. Councilors shall be elected for a term of three years, in such manner that the term of three councilors shall expire every year.

The current officers and elected councilors shall be called current elective Council members. A quorum for a meeting of the Council shall be a majority of the current elective Council members. Any former President of the Society who is a Member of the Society in good standing shall be entitled to attend Council meetings and to vote as a member of the Council.

Any former President who is qualified to participate in Council meetings and who wishes notice of them shall annually so advise the Secretary in writing.

Article 5. By-Laws for the more particular regulation of the Society shall be made from time to time.

Article 6. This Constitution may be amended by a three-fourths vote of the Active, Supporting and Life Members, Benefactors and Fellows present at any regular meeting of the Society, provided written notice of the proposed change and of the meeting at which the proposed change is to be acted upon has been sent to each Active, Supporting and Life Member, Benefactor and Fellow at least 30 days previously.

Article 7. Dues for each class of membership and the time for their payment shall be established as set forth in the By-Laws.

## **Section 2. Of Members**

Article 1. Active, Supporting and Life Members shall be persons who have shown an interest in some branch of natural science.

Article 2. Associate Members shall be persons interested in some branch of natural science (a) residing 50 miles or more from the Society's regular place of meeting and unable to attend meetings of the Society regularly; or (b) regularly enrolled as full-time students for an entire academic year at an established institution of learning. Persons holding Associate Membership as students shall be obliged to advise the Treasurer on or before the first day of September of each year as to their current and prospective status as students; they may be dropped from membership by the Treasurer if satisfactory evidence of such status is not supplied. Nothing herein shall preclude a student or a person residing 50 miles or more from the Society's regular place of meeting from being elected to any other class of membership.

Article 3. Honorary Members shall not exceed ten in number, and shall be persons eminent for their attainments in one or more of the natural sciences.

Article 4. Benefactors shall be persons who have made a significant financial contribution to the Society as determined by the Council. The names of Benefactors shall be carried on the Society's rolls in perpetuity.

Article 5. Any Member may be elected a Fellow in recognition of distinguished service to the Society.

Article 6. All classes of Members shall be chosen by majority vote of those Active, Supporting and Life Members, Benefactors and Fellows present at a regular meeting of the Society, after having been nominated at a preceding regular meeting and approved by the Council.

Article 7. Any member may be expelled from the Society, upon recommendation of the Council, by a three-fourths vote of the Active, Supporting and Life Members, Benefactors and Fellows present at any regular meeting, provided written notice of the proposed action and of the meeting at which such action is proposed to be taken has been sent at least 30 days previously to each Active, Supporting and Life Member, Benefactor and Fellow and to the member involved.

### **Section 3. Of Officers and Their Duties**

Article 1. The President shall preside at meetings of the Society and of the Council, preserve order, regulate debate, and conduct all proceedings in accordance with accepted parliamentary usage.

Article 2. The Vice-President shall have charge of the archives of the Society; shall, with the advice and assistance of the President and Secretary, plan and prepare the programs for meetings of the Society; and shall perform the duties of President in his absence.

Article 3. The Secretary shall give notice to persons of their election as members, and to committees of their appointment; shall give notice of all regular meetings of the Society; shall call special meetings when directed by the President; shall give notice to all members of the Council of all Council meetings; shall inform officers of all matters requiring their attention; shall conduct the correspondence of the Society and prepare all letters to be written in its name, retaining copies of them; shall, as directed by the Council, make all arrangements for the Annual Meeting of the Society; and shall assist the President and Vice-President in planning the programs for meetings of the Society.

Article 4. The Recording Secretary shall take and preserve correct minutes of all meetings of the Society and of the Council and shall preserve and compile in systematic order field notes presented by Members.



Article 5. The Editor, with the assistance of Associate Editors who may be appointed from time to time by the President, shall edit and supervise all publications of the Society and shall arrange for their exchange and distribution.

Article 6. The Treasurer shall collect all money due; shall pay all bills against the Society as authorized by the Council; shall keep a correct account of all receipts and expenditures; and make a detailed report of the same at the Annual Meeting.

Article 7. Officers shall be nominated by majority vote of the Council and elected at the Annual Meeting by a majority vote of the Active, Supporting and Life Members, Benefactors and Fellows present. The slate of officers nominated by the Council shall be announced at the first meeting in February each year. Any other Member may be nominated if such nomination is subscribed in writing by 15 persons who are Active, Supporting or Life Members, Benefactors or Fellows and is received by the President or Secretary at any time prior to the second meeting in February. Any office, other than that of President, becoming vacant during the year shall be filled at the next meeting of the Society in the same manner, except that the Council need not announce its nomination prior to the meeting and other nominations may be made from the floor. If the office of President become vacant during the year, the Vice-President shall become President. Persons who succeed to the office of the President, Vice-President, Secretary or Recording Secretary as the result of a vacancy shall remain eligible for election to two consecutive full terms in accordance with Article 4 of Section 1.

#### **Section 4. Of the Council and its Duties**

Article 1. The Council shall review and take action on all nominations of candidates for membership. It shall make such recommendations as it sees fit on new business initiated by Members. Its recommendations shall be presented by the Secretary at the next regular meeting of the Society. A majority vote of the Active, Supporting and Life Members, Benefactors and Fellows present at the meeting shall be sufficient to ratify recommendations made and actions taken by the Council.

Article 2. The Council may at any of its meetings initiate any new business promoting the general interests and welfare of the Society, and a majority vote of the members attending such meeting shall be sufficient for ratification. The prior authorization or approval by a majority of the councilors, given at a meeting of the Council, shall be necessary for any appropriation of funds of the Society in excess of \$50.00.



Article 3. The Council shall nominate a slate of officers for the coming year at its January meeting.

Article 5. A sufficient number of councilors shall be chosen at the first regular meeting after the Annual Meeting to fill existing vacancies. Councilors shall be nominated by a committee to be appointed by the President at the Annual Meeting, such committee to consist of three Active, Supporting or Life Members, or Benefactors or Fellows of the Society who are not members of the Council. This shall not be construed as precluding additional nominations from the floor. If the nominations exceed the numbers of vacancies, the election shall be by written ballot. Those nominees receiving the largest number of votes of Active, Supporting and Life Members, Benefactors and Fellows present shall be elected. If for any reason a councilor does not complete his term of office, his successor for the remainder of the term shall be chosen at the next regular meeting by nomination from the floor and election as prescribed above.

### **Section 5. Of Meetings**

Article 1. A meeting shall be held annually for the election of officers and for other general purposes. At this meeting the Secretary shall present a report upon the publications, meetings, membership, and other general business of the Society, and the Treasurer shall report on the financial affairs of the Society. Prior to the Annual Meeting the President shall appoint a committee of two Active, Supporting or Life Members, or Benefactors or Fellows, neither of whom shall be a member of the Council, to audit the accounts of the Treasurer.

### **Section 6. Miscellaneous**

Article 1. No substantial part of the activities of the Society shall be the carrying on of propaganda or otherwise attempting to influence legislation, or the participation or intervention in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office.

Article 2. No officer, director, member or employee of the Society may receive any pecuniary profit from its operation or upon its dissolution, except reasonable compensation for services rendered in effecting one or more of its purposes.

Article 3. In the event of voluntary dissolution of the Society or in the event of dissolution due to such other circumstances as are permitted or

required by law, the funds and assets of the Society then belonging to it shall, after proper payment of liabilities, be distributed in accordance with the law then applicable to charitable organizations qualified under Section 501(c)(3) of the Internal Revenue Code of 1945 (or corresponding provisions of any subsequent law).

Article 4. The Society shall at no time carry on any activities not permitted to be carried on (a) by an organization exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code of 1954 (or corresponding provisions of any subsequent law) or (b) by an organization, contributions to which are deductible under Sections 170(c)(2), 2055(a) or 2522(a) of the Internal Revenue code of 1954 (or corresponding provisions of any subsequent law).

## **BY-LAWS**

### **Section 1. Of Members**

Article 1. The Council shall, by a majority vote of its current elective members, set the amount of dues for the following categories of membership: Active Member, Associate Member, Supporting Member and Life Member. Honorary Members, Benefactors and Fellows shall not pay dues.

Article 2. Dues of Active, Associate and Supporting Members are payable annually no later than the first regular meeting in September except that dues of newly elected Members shall be payable upon election to membership. Persons elected as Active, Associate and Supporting Members in the months of March, April and May shall pay dues at one-half the regular rates set by the Council until the following September. Dues of Life Members are payable in no more than four consecutive annual installments; upon full payment no further dues are payable.

Article 3. By a majority vote of the current elective Council members, a person who has been an Active or Supporting Member of the Society for at least twenty-five years and has reached the age of sixty-five, may be granted an Active membership at half the annual Active dues upon written application to the Treasurer.

Article 4. Upon written application to the Treasurer, subject to the approval of a majority of the current elective Council members and if the applicant is not in arrears of dues for a previous year, (a) a Member who for a full year is absent on a scientific expedition or is engaged in military

service may be excused from the payment of dues for that year; (b) an Active Member who is regularly enrolled as a full-time student for an entire academic year at an established institution of learning may have his status changed to that of Associate Member, provided his application is received on or before the first day of September of the year for which the change of status is sought and provided it is accompanied by the annual dues of an Associate Member for that year.

Article 5. Any Member who shall neglect to pay his regular dues shall be dropped from the roll of Members after having been sent notification to that effect in writing by the Treasurer.

## **Section 2. Of Meetings**

Article 1. The Annual Meeting shall be held during the week in March that includes the second Tuesday.

Article 2. Regular meetings shall be held on the second and fourth Tuesdays of each month from September to May inclusive, except as otherwise provided by a majority vote of the Council.

Article 3. Informal meetings shall be held on the third Tuesday of June, July and August, except as otherwise provided by a majority vote of the Council.

Article 4. Thirty-five Active, Supporting and Life Members, Benefactors and Fellows shall constitute a quorum for the transaction of business at any regular meeting.

Article 5. The following items of business shall be transacted at each regular meeting in any order prescribed by the presiding officer:

1. Reading of minutes of the previous meeting by the Recording Secretary.
2. Reading of correspondence received by the Secretary.
3. Proposal of candidates for membership.
4. Election of members.
5. Committee reports.
6. Business (a) Unfinished; (b) New.
7. Presentation of program.
8. Presentation of field notes.
9. General discussion.
10. Adjournment.

## **Section 3. Of Changes of By-Laws**

Article 1. The By-Laws of the Society may be amended by a three-fourths vote of the Active, Supporting and Life Members, Benefactors and Fellows

present (a) at any one regular meeting provided written notice of the proposed change and of the meeting at which the proposed change is to be acted upon has been sent to each Active, Supporting, and Life Member, Benefactor and Fellow at least 30 days prior thereto, or (b) at any two regular meetings held on the second Tuesday of two successive months provided such change has been recommended by a vote of eleven of the current elective Council members.

#### **Section 4. Of Committee**

Article 1. A Conservation Committee shall be appointed annually by the President to read and prepare papers for the Society's publications. Such Committee shall, from time to time, publish with the consent of the Council an issue of the Society's Proceedings, which shall contain the annual reports of the Secretary and Treasurer, reports of pertinent Committees, general notes, and scientific papers. The Editorial Committee shall also recommend to the Council, for inclusion in the Society's Transactions, publications of extensive papers that are submitted to it from time to time and which, by reason of their length, are disbarred from the ordinary channels of scientific communication. Upon recommendation by the Council, the publication of a volume of the Transactions shall be subject to the approval of a majority of the Active, Supporting and Life Members, Benefactors and Fellows present at a regular meeting of the Society. The Society shall also publish a newsletter which shall contain brief articles, announcements and items of general interest to its Members and which shall appear at least six times a year. The editor of the newsletter shall be a member of the Editorial Committee.

Article 3. A Field Work Committee may be appointed annually by the President to encourage and conduct constructive field work in the New York City region and to promote the discussion of local faunal problems at meetings of the Society.

Article 4. A Field Trip Committee may be appointed annually by the President to arrange field trips for Members and guests of the Society.

Article 5. The President may, with the consent of the Council, appoint such additional committees as may be necessary or advisable from time to time to conduct the affairs of the Society or further its interests.

#### **Section 5. Of Funds and Prizes**

Article 1. The Society shall administer a fund to be known as The Charles A. Urner Memorial Fund, the principal and interest of which is to be used for the promotion of field ornithology in New Jersey, New York and Connecti-

cut, and for the publication of studies made in said areas. The Treasurer is authorized to accept contributions to this Fund from Members and other interested persons.

Article 2. The Treasurer is authorized to accept from Members and other interested persons contributions to a revolving publication fund, the income and principal of which is to be devoted primarily to the publication of the Proceedings and Transactions.

## *Special Funds*

### **The Linnaean Society of New York**

**Charles A. Urner Memorial Fund** for the promotion of field ornithology in New Jersey, New York, and Connecticut, and for publication of studies therein.

**Great Gull Island Fund** for joint support, with the American Museum of Natural History, of research on the Island, a research station administered jointly by the Linnaean Society and the Museum.

**Revolving Publications** for publication of the Transactions, the Proceedings, and the Linnaean Field-Card.

**Eisenmann Fund** for purchase and engraving of medals; if budget allows, can be used to support student research in Central and South America or to assist Central and South American students to work on ornithological projects in the United States or attend conferences.

**Library Fund** for the purchase of books and publications for the Society.

**Life Membership Fund** interest to be applied to the General Fund.

**Tom Davis Memorial Fund** for the support of an annual Tom Davis Walk at Jamaica Bay.

*Donations (tax-deductible) to increase the principal of these funds or annual gifts to supplement income are welcome. Send check or money order payable to the Linnaean Society at 15 West 77th Street, New York, NY, 10024.*



*Publications*  
*Available from*  
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**Transactions 8.** Development of Behavior in Precocial Birds. Margaret Morse Nice. 1962. 211 pp. \$4.80. Classic study of behavior development in animals with emphasis on representative precocial birds.

**Transactions 9.** Colonial Waterbird Group: Second Annual Meeting: Invited Papers. 1980. 158 pp. \$12. Ten papers on habitats, distribution and ecology of seabirds, colony-site trends, coastal surveys and censusing methods, effects of toxic pollutants by W. R. P. Bourne, R. G. B. Brown, W. H. Drury, I. C. T. Nisbet et al.

**Proceedings 71.** 1958-1970. 219 pp. \$7.20. Includes Supplement to Birds of New York Area, by John Bull; Supplement to Birds of Central and Prospect Parks, by Geoffrey Carleton; four papers on the Common and Roseate terns of Great Gull Island, by Helen Hays, L. H. Heilbrun, C. Pessino, D. Cooper.

**Proceedings 72.** 1970-1974. 130 pp. \$8.40. Includes four papers on Common and Least terns by M. E. Davis, D. B. Ford, M. Gochfeld, B. W. Massey, R. G. Wolk.

**Proceedings 73.** 1974-1977. 108 pp. \$7.20. Includes papers on breeding populations of terns and skimmers on Long Island Sound and eastern Long Island, gull/tern interactions, and waterbirds of Jerome Park Reservoir, by D. Duffy, P. Houde, and W. Sedwitz.

**The Birds of Great Gull Island 1966-1972.** David Duffy and Catherine LaFarge. 44 pp. \$2.40. Includes brief history of island and its bird life, with banding data and bibliography. Illustrated.

To order, send check or money order, plus 20% for postage and handling, payable to The Linnaean Society of New York. Send orders to: Secretary, Linnaean Society of New York, 15 West 77th Street, New York, NY 10024.





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