

# A REVIEW OF THE ORNITHOLOGY OF TRINIDAD AND TOBAGO 1950-1985

Richard ffrench

Toftingal

Laurieston Road, Gatehouse of Fleet, Castle Douglas, Scotland DG7 2BE

## Introduction

In presenting this historical review of the progress of ornithology on Trinidad and Tobago over a 35-year period, I am conscious that I may have omitted mention of work unknown to me, or which I have been unable to remember. If so, I apologise to those concerned. Nevertheless, I was resident on Trinidad for nearly 30 of those years and actively involved in ornithology, so I met, corresponded or worked with the majority of those mentioned below. I hope I have done them justice.

## The Fifties

In common with most neotropical countries at the mid-century, Trinidad and Tobago could produce little evidence of ornithological activity up to 1950 other than the work of collectors. Even the extraordinarily detailed and valuable work of Belcher and Smooker (1934-1937) was based solely on their collection of nests and eggs. The age of the collector was indeed not quite over, since sizeable collections of bird specimens were made on Trinidad and Tobago during 1950-1951 by A. Rasool and R. Plowden-Wardlaw for the Yale Peabody Museum in Massachusetts, and by G. F. Mees in 1953-54 for the Leiden Museum in Holland. During this decade a considerable number of bird skins were also obtained by Wilbur Downs and Thomas Aitken in the course of their work at the Trinidad Regional Virus Laboratory (TRVL), and deposited in the collection now held by the Caribbean Epidemiology Centre (CAREC) in Port of Spain. This should form the basis of a national collection, if such a project is ever contemplated.

Apart from Leotaud's work of 1866, written in French and now virtually unobtainable, there was up to 1950 no descriptive account of the birds of Trinidad and Tobago. James Bond's monumental study of West Indian birds, begun in the 1920s, pointedly drew a line between the Antilles and Tobago, in acknowledgement of the fact that the avifauna of Trinidad and Tobago were basically continental in nature, rather than oceanic, and his 1936 book omitted the birds of these islands. Thus anyone living in or visiting Trinidad to study birds could identify species only by using books on the birds of British Guiana, now Guyana, the Antilles, Panama, Mexico or even the U.S.A.; or alternatively, by relying on museum collections most of which were to be found in the metropolitan countries of the north. Naturally, this restriction tended to deter residents of Trinidad and Tobago from taking an interest in ornithology, for the basis of most studies depends on identification.

The first book to attempt to remedy this situation was produced locally in 1950, not by an ornithologist but by an elderly Catholic priest, Father Raymund Devas, who lived in Grenada. It contained virtually no illustrations, was very short and fairly inaccurate, but it did contain an almost complete list of species and it was a start. A similar attempt to enlighten interested visitors was made by Mrs. K. Alford with notes on birds in a Tobago guide-book at about this time. Popular articles illustrated by photographs and very inadequate paintings appeared in oil company magazines written by Johnson (1956-57) and Saunders (1956, 1957), and these may have helped to arouse the latent interest in birds among the people of Trinidad and Tobago. Two individuals, R.E. Johnson (1937) and E. Chenery, had indeed studied local birds since the 1930s, but there was little published work. The revival of the Trinidad and Tobago Field Naturalists' Club fortunately led to publication of a Club journal at varying intervals from 1956 up to 1965, and every two years after that. This led to early contributions on birds from Chenery (1956) on nesting toucans, and by Quesnel (1956) on the density of Great Kiskadees in Port of Spain.

It is perhaps not surprising, therefore, to find that the major contributions to ornithological science at this time emanated from expatriates, mainly British, for Trinidad and Tobago was then still a colony, or North American. First to appear was a useful volume by Junge and Mees (1958) giving an account of the taxonomic work arising from the latter's collections five years earlier. Brief descriptions of all species were included, but there were no illustrations. Next came a book from Geoffrey Herklots, principal of The Imperial College of Tropical Agriculture (ICTA) which preceded The University of the West Indies (U.W.I.) at St Augustine. Dr. Herklots was a British plant physiologist with an interest also in birds and painting. He attempted to fill the need for an illustrated field guide of local birds, but unfortunately the work (1961) was not a success. The descriptions were far too lengthy and detailed, being clearly based on specimens in the hand, and so were in many cases useless for field work; worse still, the author's own paintings were too often grotesque and inaccurate, usually depicting only the anterior half of the bird, and were well below the standard by now to be expected in an international market. Herklots' field experience also was far too limited to enable him to provide adequate treatment for the majority of the species accounts.

Probably the most significant development for local ornithology during this decade came about from the decision



of the famous American naturalist and explorer William Beebe to set up a tropical field research station for the New York Zoological Society at his property, "Simla", in the Arima Valley. Founded in 1950, it was to last over twenty years, and served mainly to attract researchers to study tropical biology in a setting that benefited from convenient access and modern facilities rarely available to field workers elsewhere in the neotropics at that time. Although Dr. Beebe was already of advanced years and produced little significant work himself at Simla, his paper on the ecology of the Arima Valley (1952) provided a useful base for future research.

A few years later, Beebe's far-sightedness was rewarded when Simla, and its neighbouring estate of St. Pat's, became the base for research conducted over five years by David and Barbara Snow, professional ornithologists from Britain, who soon became, along with Alexander Skutch in Costa Rica, some of the most outstanding personalities in the world of neotropical field ornithology. One of the great benefits of the Snows' situation was that, unlike the majority of visiting expatriate researchers, they were able to work over a lengthy and continuous period, and thus achieve an indepth understanding of the ecology and other biological aspects of the area. The principal subjects of their studies were the lek-forming manakins (1962a, 1962c, 1963, 1971), bellbirds (1970) and hummingbirds (1972, 1973, 1974) as well as the oilbird (1961, 1962), certain swifts (1962b) and thrushes (1963b); arising from the above came continued work on the significance of fruit-eating in tropical birds and its connection with the evolution of lek behaviour (1962a, 1962c). The Snows' work also embraced many other branches of ornithology, and provided extremely valuable primary data, meticulously collected, on breeding seasons (1963a, 1964, 1973, 1974), social organization (1971, 1973), feeding niches (1972) and ecology (1971), longevity (1974), and the general biology of species (1963a, 1964, 1985). To further their ecological studies they also collected plant material widely for identification purposes, since literature on neotropical plants was then as sparse as that on birds. Although the Snows' residence on Trinidad ended in 1961, their association with neotropical ornithology has endured for more than three decades to the present time, by many visits to continental countries. I myself benefited greatly from the Snows' generous sharing of primary data to assist my own studies, as well as through stimulating companionship in the field. For a young ornithologist starting out in the neotropics, the opportunity to learn as a kind of apprentice from such experts was a wonderful stroke of luck.

### The Sixties

Since we were all disappointed by the inadequacy of Herklot's book, it is not surprising that in the early 1960s the Snows and I began to talk about a joint project to produce a publication worthy of the extraordinary avifauna of this country. To begin with, this consisted mainly of amassing data on the general biology of species, and the understanding was that I would concentrate my efforts on lowland areas, swamps and coasts, while the Snows would deal with hill forests.

Meanwhile, there had been brief visits to Trinidad and Tobago by scientists with specific interests, which resulted in publications in the international scientific press; these included Darnton (1958) on manakins, Gilliard (1958) on birds-of-paradise in Tobago, Tashian (1957) on oropendolas, and Gross (1958) on the sleeping habits of Bananaquits. During the 1960s the Simla station facilitated important research by Collins (1968-1974), mainly on various swifts, Lill (1974) on evolutionary aspects of manakin courting behaviour, and Drury (1962), on oropendola nestbuilding. Independent research led to the publication of papers by other workers, such as Lanyon (1963), on the obscure *Myiarchus* flycatchers, Gochfeld (1972, 1973) on marshland and unusual species, and Nottebohm (1969), on parrot learning behaviour.

On the more popular front, two important books appeared which certainly put Trinidad and Tobago into the limelight to some extent. These were the work of Jan Lindblad, the Swedish naturalist and photographer, on the scarlet ibis in Caroni Swamp (1969), and Brooke Worth (1967), a scientist working with Wilbur Downs at the TRVL, whose perceptive and amusing book on his adventures in Trinidad is a classic of its kind.

One interesting development followed the destruction of Tobago's forests in 1963 by Hurricane Flora. Perhaps typically, the government of the day was less interested in the almost total extinction of several hill forest species there, including the White-tailed Sabrewing, than in the effect on the islands tourist trade of the similarly near annihilation of the introduced Greater Bird-of-Paradise on Little Tobago Island. Sensing an opportunity, I and some others were able to bring about the establishment on Little Tobago, for one year, of a graduate researcher from Wisconsin, Jim Dinsmore, whose work (1967-1972) not only dealt with the ecology of the island, and its doubtful suitability as a haven for birds-of-paradise, but also included the first comprehensive account of the main seabird islands off north-east Tobago.

During the 1960s I had not been idle. Following the precepts and example of the Snows, my wife and I began as early as 1958 to catch and band a variety of species, with particular emphasis on the Dickcissel (1967a), whose erratic winter irruptions into south Trinidad reached a peak at this time. We worked also on migrant shorebirds, which conveniently roosted and fed in great numbers on Pointe-a-Pierre mud-flats near our home, in the days before the oil company reclaimed that land for a tank farm, and on the scarlet ibis (1970), which still nested in Caroni Swamp up to 1969. We also paid a number of visits to offshore islands, principally Soldado Rock, where we banded and studied Sooty Terns and Brown Noddies (1989, 1991a), and the various Bocas islands in the course of Field Naturalists' Club expeditions (1965, 1967b, 1969).

In 1965 I finally began work on actually writing my guide to local birds. David Snow, who left the country in 1961, had decided he was too busy elsewhere to participate, but gave much-valued help. I was also fortunate enough to acquire the cooperation of Don Eckelberry and John O'Neill,



two of the foremost bird artists in the U.S.A., and, crucially, financial backing for the publication from a friend. I must mention here that at no time did I aspire to write a field guide which exists principally or even solely to enable identification. Birds are far too interesting, indeed fascinating, to be relegated to the level of names or numbers to be collected by those with nothing better to do. Thus I determined to include and present in summary form all the information I could glean on the 400 odd species known to occur on Trinidad and Tobago. It took me eight years to complete (1973), and a further 18 years to update (1991b). Of course we had been collecting a wide variety of data for ten years before I began writing the text and this has continued right up to the present. The emphasis was on life history material, such as vocalisations, food, breeding and other behaviour. From the outset I aimed to provide a reference book which could be useful for residents and visitors on Trinidad and Tobago, but which would also provide a basis for field workers in neighbouring countries. Thus I included a wide-ranging bibliography of some 330 titles, which I had consulted in the course of my compilation. I believe it was all this information, collated for the first time in a general study of the birds of a neotropical country, which gave my book its main value.

Although it had always surprised me that few members of the Field Naturalists' Club had taken much interest in bird study, there had nevertheless been plenty of interest in other branches of natural history, and particularly in the conservation of wildlife. This latter concept was probably the principal motivator in the establishment in 1967 of the Asa Wright Nature Centre, the first of its kind in the neotropics, which was based largely on the initiative of Don Eckelberty, the American artist, who spear-headed the efforts to set it up. Shortly after this, the New York Zoological Society decided after the death of William Beebe to give up its field station, and the property was eventually taken over to be run on a limited budget by the Nature Centre. Thus the facilities remained in place to enable important work to be done there during the 1970s and beyond. By this time the University of the West Indies had established itself securely in various campuses, and support there had been available for visiting or resident field workers in ornithology.

### **The Seventies and early Eighties**

Valuable work was done over a lengthy time by a team from Florida, led by Peter Feinsinger, mainly on the subject of the ecological relationships of hummingbirds and flowering plants (1978, 1982); also by the Wileys (1980) and Manolis (1982) on the breeding strategies of certain icterids, by Morris (1984) on breeding seabirds on Little Tobago, and by Williams and others on bird migration that had been monitored on radar (1977). One of the most useful pieces of research, from my personal point of view, was carried out by Keeler-Wolf (1982) on comparative avian ecology in the hill forests of Trinidad and Tobago, particularly as it related to the recovery of Tobago's hill forest after 1963.

I had followed up my more general work by concentrating on more specific topics, such as the life history of the pearl kite (1982), the bird-life of an abandoned estate at Grafton, Tobago (1978), and on a more sustained attempt to bring an interest in history into the lives of the wider public of Trinidad and Tobago through magazine and newspaper articles, and eventually a less costly illustrated booklet on the commoner birds of the country (1986).

Moving into the eighties, we find continuing work on migrant seabirds by a Canadian team led by Blokpoel and Morris (1982, 1984), a useful but far too brief study of the impact of chachalacas on crop predation in Tobago by Diamond (1983), and some interesting comparative work by Wunderle on the avifaunas of Tobago and Grenada (1985). In the later years of the decade, work was forthcoming on rare or threatened species such as the piping-guan, scarlet ibis and other wetland species, but I am reaching beyond the scope of this study.

It cannot have escaped notice that little ornithological research was produced during the period under review by native-born residents of Trinidad and Tobago. Exceptions to this rule include some members of the Trinidad and Tobago Field Naturalists' Club, such as Elisha Tikasingh and Clyde Crichlow; but no one in that Club would need to be reminded that one principal contributor, especially in latter days, has been that all-round naturalist of the "old school", Victor Quesnel, who followed up his original work from 1956 on the Kiskadee by articles on hummingbirds (1977), nightjars (1985), and in a hilarious if controversial work on the song of the peppershrike (1987).

I said earlier that William Beebe in his establishment of Simla laid down an important foundation; so I return finally to the Arima valley, and to the other highly successful venture of the Asa Wright Nature Centre, which has drawn ornithological pilgrims from all parts of the world. This has led to a valuable tourist asset, and has contributed towards the awakening of an awareness, through education and publicity, of wildlife and especially birdlife in this country. In the ten years since I found myself unfortunately constrained to leave my residence of 30 years in the West Indies, I have seen the continued expansion of this process, not only at the Centre, but also in other areas of both islands, and into valuable and praiseworthy efforts by a number of individuals and organizations in the fields of eco-tourism, photography, publication and research. It is my hope that the latter field will now begin to be developed even more widely.

I am proud to have been part of the development of ornithology in Trinidad and Tobago over the last 40 years. I have made many fine friends and acquaintances during that time, and I would like to express my very sincere appreciation for all that they have done with me along the way.



## References

- Beebe, W. 1952. Introduction to the ecology of the Arima Valley, Trinidad. *Zoologica* 37: 157-183.
- Belcher, C. and G.D. Smooker. 1934-1937. Birds of the colony of Trinidad and Tobago (in 6 parts). *Ibis* (13)4: 572-595 *et seq.*
- Blokpoel, H., R.D. Morris and G.D. Tessier. 1984. Field investigations of the biology of Common Terns wintering in Trinidad. *J. Field Ornith.* 55: 424-434.
- Chenery, E.M. 1956. The Sulphur-and-white-breasted Toucan. *J. Trinidad Field Naturalists' Club.* pp. 4 - 11.
- Collins, C.T. 1968a. The comparative biology of two species of swifts in Trinidad, West Indies. *Bull. Fla. State Mus.* 11(5): 257-320.
- Collins, C.T. 1968b. Notes on the biology of Chapman's Swift. *Am. Mus. Novit.* 2320. 15pp.
- Collins, C. 1974. Survival rate of the Chestnut-collared Swift. *West. Bird Bander* 49: 50 - 53.
- Darnton, I. 1958. The display of the manakin, *Manacus manacus*. *Ibis* 100: 52-58.
- Devas, R. 1950. *Visitor's book of birds, Trinidad and Tobago.* Port of Spain, Muir Marshall 76 PP.
- Diamond, A.W. 1983. Censusing and managing cage-birds, seabirds, and birds harmful to agriculture in Trinidad and Tobago. *F.A.O. field document* FO:TRI/79/011.
- Dinsmore, J.J. 1967. Ecology and behavior of the Greater Bird-of-paradise on Little Tobago island. M.S. thesis. Univ. of Wisconsin.
- Dinsmore, J.J. 1972. Avifauna of Little Tobago island. *Q.J. Fla. Acad. Sci.* 35 (1): 55-71.
- Drury, W.H. 1962. Breeding activities, especially nest-building, of the Yellowtail *Ostinops decumanus* in Trinidad, West Indies. *Zoologica* 47: 39-58.
- Feinsinger, P. and R.K. Colwell. 1978. Community organization among Neotropical nectar-feeding birds. *Am. Zool.* 18: 779-795.
- Feinsinger, P., J.A. Wolfe and L.A. Swarm. 1982. Island ecology: reduced hummingbird diversity and the pollination biology of plants, Trinidad and Tobago. *Ecology* 63: 494-506.
- ffrench, R.P. 1965. Notes on the avifauna of Grand Fond, Monos. *J. Trinidad Field Naturalists' Club.* pp. 28-50.
- ffrench, R.P. 1967a. The Dickcissel on its wintering grounds in Trinidad. *Living Bird* 6: 123-140.
- ffrench, R.P. 1967b. The avifauna of Chacachacare island. *J. Trinidad Field Naturalists' Club.* pp. 45-46.
- ffrench, R.P. 1969. The avifauna of Saut d'Eau island. *J. Trinidad Field Naturalists' Club.* p. 16.
- ffrench, R.P. and F. Haverschmidt. 1970. The Scarlet Ibis in Surinam and Trinidad. *Living Bird* 9: 147-165.
- ffrench, R.P. 1973. *A Guide to the Birds of Trinidad and Tobago.* Livingston Pub. Co., Wynnewood, PA. 470 pp.
- ffrench, R.P. and M. ffrench. 1978. The birds of Grafton Estate, Tobago. *Living World, J. Trinidad Field Naturalist Club.* pp. 19-24.
- ffrench, R.P. 1982. The breeding of the Pearl Kite in Trinidad. *Living Bird* 19: 121-131.
- ffrench, R.P. 1989. The birds and other vertebrates of Soldado Rock, Trinidad. *Living World, J. Trinidad Field Naturalists' Club.* pp 16-20.
- ffrench, R.P. 1991a. Synchronous breeding and moult in the Brown Noddy tern on Soldado Rock, Trinidad. *Living World, J. Trinidad Field Naturalists' Club.* pp. 39-41.
- ffrench, R.P. 1991b. *A Guide to the Birds of Trinidad and Tobago* (2nd edition). Cornell Univ. Press, Ithaca, N.Y. 426 pp.
- Gilliard, E.T. 1958. Feathered dancers of Little Tobago. *Nat. Geog. Mag.* 114: 428-440.
- Gochfeld, M. 1972. Observations on the status, ecology and behavior of Soras wintering in: Trinidad, West Indies. *Wilson Bull.* 84: 200-201.
- Gochfeld, M. 1973. Observations on new or unusual birds from Trinidad, and comments on the genus *Plegadis* in Venezuela. *Condor* 75: 474-478.
- Gross, A.O. 1958. Life history of the Bananaquit of Tobago island. *Wilson Bull.* 70: 257-279.
- Herklots, G.A.C. 1961. *The Birds of Trinidad and Tobago.* London: Collins. 287 pp.
- Johnson, R.E. 1937. The nest of the Common Potoo. *Illustrated London News.* March 13, p.436.
- Johnson, R.E. 1956-57. Trinidad birds (in 4 parts). *Shell Trin. Mag.* (various issues).
- Junge, G.C.A. and G.F.Mees. 1958. *The Avifauna of Trinidad and Tobago.* *Zoologische Verhandelingen* 37. Leiden. 172 pp.
- Keeler-Wolf, T.H. 1982. Reduced avian densities in Tobago lower montane rain forest; a resource-based study. Ph.D. diss. Univ. of California, Santa Cruz. 305 pp.
- Lanyon, W.E. 1963. Experiments on discrimination in *Myiarchus* flycatchers. *Am. Mus. Novit.* 2126. 16 pp.
- Leotaud, A. 1866. *Oiseaux de l'île de la Trinidad.* Port of Spain: Chronicle Press. 560 pp.
- Lill, A. 1970. Nidification in the Channel-billed Toucan in Trinidad. *Condor* 72: 235-236.
- Lill, A. 1974. Sexual behaviour of the lek-forming White-bearded Manakin. *Z. Tierpsychol.* 36 (1-5): 1-36.
- Lindblad, J. 1969. *Journey to Red Birds.* Hill & Wang, New York. 176pp.
- Manolis, T. 1982. Host relationships and reproductive strategies of the Shiny Cowbird in Trinidad and Tobago. Ph.D. diss. Univ. of Colorado, Boulder. 136pp.
- Morris, R.D. 1994. Breeding chronology and reproductive success of seabirds on Little Tobago. *Colon. Waterbirds* 7: 1-9.

- Nottebohm, F. and M. Nottebohm.** 1969. The parrots of Bush-Bush, *Animal Kingdom* 72: 18-23.
- Quesnel, V.C.** 1956. The density of the population of breeding Kiskadees in Port of Spain. *J. Trinidad Field Naturalists' Club*. pp. 24-25.
- Quesnel, V.C.** 1977. Stay-at-home Starthroat. *Living World, J. Trinidad Field Naturalists' Club*. p. 11.
- Quesnel, V.C.** 1985. Why do nightjars sit on the road at night? *Living World, J. Trinidad Field Naturalists' Club*. pp. 19-23.
- Quesnel, V.C.** 1987. The songs of the Rufous-browed Peppershrike *Cyclarhis gujanensis*. *Living World, J. Trinidad Field Naturalist Club*. pp. 43-45.
- Saunders, J.B.** 1956. The Scarlet Ibis. *Trin. Regent News* 6(4): 10-12.
- Saunders, J. B.** 1957. Bird Life on Soldado Rock. *Trin. Regent News* 7(3): 4-7.
- Snow, B.K.** 1970. A field study of the Bearded Bellbird in Trinidad. *Ibis* 112: 299-329.
- Snow, B.K.** 1973. Social organisation of the Hairy Hermit *Glaucis hirsuta*. *Ardea* 61: 94-105.
- Snow, B.K.** 1974. Lek behaviour and breeding of Guy's Hermit *Phaethornis guy*. *Ibis* 116: 278-297.
- Snow, B.K. and D.W. Snow.** 1971. The feeding ecology of tanagers and honeycreepers in Trinidad. *Auk* 88: 291-322.
- Snow, B.K. and D.W. Snow.** 1972. Feeding niches of hummingbirds in a Trinidad valley. *J. Anim. Ecol.* 41: 471-485.
- Snow, D.W.** 1961 and 1962. The natural history of the Oilbird *Steatornis caripensis*, in Trinidad. (in 2 parts). *Zoologica* 46: 27-48; and 47: 199-221.
- Snow, D.W.** 1962a. A field study of the Black-and-white Manakin in Trinidad. *Zoologica* 47: 65-104.
- Snow, D.W.** 1962b. Notes on the biology of Trinidad swifts. *Zoologica* 47: 129-139.
- Snow, D.W.** 1962c. A field study of the Golden-headed Manakin in Trinidad. *Zoologica* 47: 183-198.
- Snow, D.W.** 1963. The display of the Blue-backed Manakin in Tobago. *Zoologica* 48: 167-176.
- Snow, D.W.** 1971. Social organization of the Blue-backed Manakin. *Wilson Bull.* 83: 35-38.
- Snow, D.W.** 1985. *The web of adaptation: bird studies in the American tropics*. Ithaca: Cornell Univ. Press. 192 pp.
- Snow, D.W. and A. Lill.** 1974. Longevity records for some Neotropical landbirds. *Condor* 76: 262-267.
- Snow, D.W. and B.K. Snow.** 1963a. Weights and wing-lengths of some Trinidad birds. *Zoologica* 48: 1-12.
- Snow, D.W. and B.K. Snow.** 1963b. Breeding and the annual cycle in three Trinidad thrushes. *Wilson Bull.* 75: 27-41.
- Snow, D.W. and B.K. Snow.** 1964. Breeding seasons and the annual cycles of Trinidad landbirds. *Zoologica* 49: 1-39.
- Snow, D.W. and B.K. Snow.** 1973. The breeding of the Hairy Hermit *Glaucis hirsuta* in Trinidad. *Ardea* 61: 106-122.
- Tashian, R.E.** 1957. Nesting behavior of the Crested Oropendola in northern Trinidad. *Zoologica* 42: 87-98.
- Wiley, R.H. and M.S. Wiley.** 1980. Spacing and timing in the nesting ecology of a tropical blackbird; comparison of populations in different environments. *Ecol. Monogr.* 50: 153-178.
- Williams, T.C., J.M. Williams, L.C. Ireland and J.M. Teal.** 1977. Bird migration over the western North Atlantic Ocean. *Am. Birds* 31: 251-267.
- Worth, C.B.** 1967. *A Naturalist in Trinidad*. Lippincott Co. Philadelphia. 291 pp.
- Wunderle, J.M.** 1985. An ecological comparison of the avifaunas of Grenada and Tobago. *Wilson Bull.* 97: 356-365.