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## BIOGRAPHICAL SKETCH OF HARRY A. BEATTY

By OLIVER C. SKOV

Harry A. Beatty was born on St. Croix, January 10, 1903. He received his early training in natural science on his father's sugar cane plantation, an interest which matured with the years into a vocation. The first rudiments of an education were received by him from a private instructor and later he entered the Richmond High School, graduating in 1918. By that time he had brought together a sizable collection of insects, birds and eggs. In 1919 he attended the Mount Hermon School in Massachusetts, majoring in zoology. However, his studies at Mount Hermon were never completed, as he had to return home after his second year on account of financial difficulties.

Beatty's interest in natural history never lagged for a moment. In 1924 he was at Guánica, Puerto Rico, working in sugar cane cultivation, and he improved every opportunity for observation on the bird life of the region. It was during these ramblings that he made the acquaintance of Dr. Stuart T. Danforth who encouraged him to publish his notes on the birds of St. Croix, and later on the birds of Guánica Lagoon. He was sent to the Dominican Republic in 1925 where he made extensive observations on the bird life inhabiting the jungles and the savannahs around La Romana, and making frequent short excursions into the interior of that Island, when opportunity permitted.

He returned to St. Croix in 1929 and a few months later was in New York, studying medical entomology under a Professor of Medicine who was associated with Columbia University. He again returned to St. Croix in 1933, this time to enter the Department of Health as supervisor and biologist on a malaria and filaria research and control project. This involved extensive field and laboratory work with mosquitos, rearing and dissecting the infected insects.

Although preoccupied with these studies he always found time for investigations in other fields, and the discovery that several species of native birds harbored filaria parasites followed. Beatty's researches received the attention of Professor O'Connor, of Columbia University, and Professor Augustine, of Harvard Medical School; and in 1935 Dr. O'Connor spent the winter working with him, returning again in the summer of 1936 ac-

accompanied by Dr. Augustine. The results of these joint investigations were published as short papers in leading medical journals.

At the time little was known of the fresh water fishes and the mollusca, and extensive collecting was undertaken; the latter receiving special attention to determine their status among disease carriers. His interest in the birds of the islands received priority among his pet avocations. His paper on the birds of St. Croix was published in 1930, and later his notes on the birds of Guánica Lagoon appeared. Since then many interesting short papers in natural science, particularly in the Virgin Islands, have been published and there is promise of many others to follow.

In 1937 he went to Venezuela on the Weber expedition, collecting some birds, but he was particularly interested in searching for blood parasites. He made a collection of skeletal material for the United States National Museum. The following year saw him engaged in short excursions to St. Thomas and St. John, and for two summers he made observations on the pelagic breeding birds of the Virgin Islands, establishing new records and extending the range of several species.

In 1941 Beatty left the Department of Health to work with the Virgin Islands Wildlife Research and Restoration Project, a transfer which took him on a two-months study tour of several of the large game reservations in the United States. He held the post as supervisor and biologist of the project, until August 1944. Then Beatty went to Mona Island, remaining there for six weeks while making extensive collections of birds, insects, mollusca, and crustacea and some plants. In this journey he spent one week in the Luquillo Mountains of Puerto Rico searching for crows and parrots before returning to St. Croix to prepare his manuscripts for publication.

He is an enthusiast of the 16 mm. movie camera and his color films of birds and insects are always entertaining.

## INTRODUCTION

The island of St. Croix lies between 17th and 19th parallels north latitude and  $64^{\circ} 10'$  and  $65^{\circ} 30'$  west longitude. The length is 21 miles while the breadth is at most 6 miles on the western end, tapering wedgelike to a point on the eastern end. The mountain system, extending the length of the island, runs parallel to the north coast and fans out on the south side to form an extensive plain which, roughly, takes in about one third of the island. The highest peak is in Mount Eagle, near the centre of the range, at 1165 feet. The radiating spurs, abutting the shore line, come together to form valleys culminating in numerous bays.

On the south side the lowlands are planted to sugar cane and pasture lands. The western tip and eastern one third of the island are covered mainly with a semi-xerophytic type of vegetation, with dense thickets of organ cactus and bull cactus predominating. Of the original forests, which clothed the Island during an earlier era, only small pockets in the less accessible valleys have survived the onslaught, and there is some natural reforestation taking place where the second growth is reclaiming at a rapid rate large tracts of land which formerly were utilized for agricultural development.

The precipitation varies greatly from year to year, it being anywhere from 30 inches to 90 inches. Much of the rainfall finds its way into the sea but there are five quite large depressions along the coast, that become water holding areas, supporting a variety of bird and insect life. However, during drought years these so-called ponds turn into dust bowls. The few mangrove swamps on the Island are quite extensive.

The rainfall averages 46 inches annually, having a remarkable distribution over such a small land mass. The eastern one third receives approximately one half as much of the normal rainfall as the remainder of the Island and; therefore, has no permanent streams nor surface springs. The remaining portion of the Island is seamed with numerous streamways, although only a few of them maintain running water throughout the year.

The temperature is uniform; the daily and yearly fluctuations being gradual, and therefore, not marked. There is, however, a decided cooling off in temperature toward nightfall, which in the winter months can become quite cold. The average maximum on record is  $92^{\circ}$  and the minimum  $59^{\circ}$  with slight variations in either direction during some years. The humidity is not constant as there is not sufficient stored surface moisture to maintain it. During the dry seasons the evaporation rate is comparatively high, insects become inactive, and it would appear that there is no seasonal timetable for reproduction.

The short rain season comes in April-May, bringing with it the first burst of new foliage, and masses of flowers and winged insects begin swarming at dusk. The heavy rainfall occurs from October until January and many plants bloom a second time. Insects swarm again, following a rest period, and many species assume pest proportions.

The material upon which the present report is based was collected by the writer during the period from 1934 to 1945 and deposited in several institutions of scientific research. Much care was given to the preparation of the papers. The scientific nomenclature brought up-to-date in so far as has been made possible by existing limitations and although some slight discrepancies are sure to turn up, it is believed that on the whole, the publication of these papers without further delay should be undertaken; its value enhanced by the knowledge that no general treatise has appeared in print hitherto. It especially is in recognition of this latter circumstance that the task of accumulating the material was undertaken.

In the past there have been occasional short papers which discuss the various St. Croix faunas, but a relatively small portion of this literature is based upon study of extensive material, and, in fact, deals with odds and ends of insect material picked up by wandering naturalists. St. Croix seems always to be taken for granted and never seriously considered as an important integral part in any scientific survey of the Greater Antilles. To mammalogists it comes as a surprise to learn of the presence of a species of deer on the island, and that it occurs there abundantly. Ledru, in 1810, probably gave the earliest reference to the pelagic fauna, and in 1871 Cope discussed the ichthyology of St. Croix, but neither of these writers made mention of its fresh-water fishes.

The writer has already published on the "Birds of St. Croix" (Jour. Dept. Agr. P. R., 14(3): 135-150. Rio Piedras, August 1930), and, with my subsequent collections, this has been expanded by the late Dr. Stuart T. Danforth into a "Supplementary Account of the Birds of the Virgin Islands, with Notes on their Food Habits" together with a "List of Birds Known to Occur in the Virgin Islands" (Jour. Agr. U. P. R., 19(4): 439-72. Rio Piedras, December 1935). Chapman Grant in "The Growth of Herpetology in Puerto Rico and the Virgin Islands Area" (Jour. Dept. Agr. P. R., 16(4): 401-4. Rio Piedras, February 1933), lists all the reptiles from St. Croix.