Date	*Place Banded*	*Place Recovered*
RECOVERED BETWEEN THREE AND FOUR YEARS AFTER BANDING		
Nov. 5	Barnstable	Constanza, Dominican Republic
Jan. 29	Ipswich	Gasparilla, Fla.
April 7	Barnstable	Lockport, N. Y.
May 14	"	Noyac, L. I., N. Y.
May 14	Buzzards Bay	East Wareham, Mass.
June 1	Barnstable	Buzzards Bay, Mass.
June 2	"	Sanford, Me.
RECOVERED BETWEEN FOUR AND FIVE YEARS AFTER BANDING		
Aug. 12	Barnstable	Ocean City, Md.
May 1	Hamilton	North Cromwell, Conn.
July 25	Barnstable	Easthampton, Mass.
Oct. 24	"	Sandusky Bay, Ohio
RECOVERED BETWEEN FIVE AND SIX YEARS AFTER BANDING		
June 4	Hamilton	Rye Beach, N. H.
RECOVERED BETWEEN SIX AND SEVEN YEARS AFTER BANDING		
May 16	North Beverly	Peabody, Mass.

Cohasset, Massachusetts.

THE ROLE OF THE AMATEUR

BY LUDLOW GRISCOM

ONE hears a good deal nowadays of phrases such as "professional scientists" *versus* "amateurs," or "ornithologists" *versus* "amateur bird-students," and there seems to be a very general impression that the former in some subtle manner are superior and that the latter, often in a somewhat less subtle manner, are relatively inferior. We live in an age where one popular idea after another is being "debunked," so it is perhaps timely in this connection to replace artificial and often misleading distinctions and terms with what would seem to me to be a sounder viewpoint. I am personally interested in the question, as it has been my happy fortune to be in close contact with "amateurs" in both botany and ornithology, and I am convinced that this association has been of far greater benefit to me than to the great majority, at least, of them. While, therefore, I am quite incompetent to write on a strictly bird-banding theme, I can promote discussion of a broader theme which applies to bird-banding, and which has been touched upon in a recent number of this journal.

If we adhere strictly to the dictionary definition, the only

distinction between "professionals" and "amateurs" would be that the former get paid for their services and the latter do not. It is apparent that in so far as ornithological excellence is concerned, there is no real distinction here. Every reader of this article can instantly think of William Brewster and other men, who have been leaders in American ornithology and who never were paid a salary. The accident of independent means has no bearing, one way or the other, upon ornithological excellence. It does not follow either that the men occupying the paid museum positions are the best men, or that the men of independent means have a hopeless advantage over the men who must receive some compensation for their services.

There is a more genuine contrast in the terms "amateur bird-student" and "ornithologist." The element of time and the factor of special scientific training, such as a Ph.D. in zoölogy, are both important in this connection. Amateur bird-students are usually people with whom bird-study is a hobby which can only be indulged in their spare time. The ornithologist might be regarded as one who devotes *all* his time to bird-study, as the main occupation of his life. Other things being equal, the latter will inevitably learn and accomplish ten times as much. Curiously enough, this element of time is a factor which many "amateurs" completely overlook. In my own personal experience I have frequently met bird-lovers who quite sincerely told me that they had studied birds "all their lives," when I knew perfectly well that they had done no such thing, and that they had been unable to give even fifty per cent of their spare time to this subject. It does not follow, however, that any one devoting all his time to bird work of some kind is *ipso facto* an ornithologist. At least it is not science to catalogue museum accessions in the way of bird-skins; it is not science to amass a complete collection of North American birds' eggs, nor is it science to fasten on bands on an infinite number of birds' legs over a long period of years. It will be inferred that the term, "ornithologist," has been frequently abused, and to meet this situation one often encounters the phrase nowadays, "scientific ornithologist," in reality an absurd tautology.

The factor of special technical training requires less comment. In every field of science the mass of accumulated data is now so enormous that ever-increased specialization is the order of the day. Special technical training is steadily more desirable or necessary, and it is obvious that having it is a great advantage. Not having it, however, is by no means an

insuperable handicap. Several of the ranking ornithologists of the world to-day did not even go to college, and I know one successful corporation lawyer who at the age of forty became the world's authority on the excessively difficult sedge genus *Carex* by studying botany as a hobby in his spare time. It must be admitted, however, that if I go out birding on Sundays with a lawyer, the enthusiastic Mr. A., the chances that he will ever become an ornithologist of international reputation are excessively remote.

To broaden our inquiry for a moment, there are really three great divisions in scientific activity. At the bottom are those whose interest in science is a hobby, by choice or circumstance a side issue as regards their main activity. They have but little time to give to it, few or no facilities, no special technical training. The second group is a large one, and includes the great majority of scientists. They give all their time to some branch of science, they acquire the necessary facilities or gravitate to the institutions which possess them, and a varying amount of special training gives them a fair start. Their intellectual endowment is little if at all greater than that of the first group, and they are primarily concerned with adding to the storehouse of definitely established facts. The third group, a mere handful, are the preëminent figures in the scientific world. With every advantage of training, facility, and time, an immeasurable superiority in intellect, personality, and character enables them to digest the data furnished by the other groups and to make synthetic generalizations and deductions of far-reaching importance, often combining the fields of five or six different sciences. Giants, they tower above the rest of us, beacons along the rough trail of human progress. Their superiority over the middle group is not only a question of degree, but also of kind; it is qualitative as well as quantitative.

If my rough classification be analysed a little further, it will be seen that the differences between Group 1 (whom I shall call amateurs) and Group 2 are of degree only, they are purely quantitative, rather than qualitative, and there is every possible stage of transition. At almost any moment the amateur can become a scientist, and every scientist started as an amateur. His amateur pupil or companion of to-day may become his superior to-morrow. I have seen it happen. There is no special basis in reality for any feeling of superiority on the part of the scientist, who may well be the lesser man of the two, even though he knows more about birds than does the amateur. To put it bluntly, he is a rooster on a very

small dunghill. The ideal, of course, is that each should know his place, then friction or hard feelings would become impossible.

It is true that there are irresponsible amateurs, who do not know their place or their limitations. More important yet, there are some who do not grasp the fundamental principal of scientific accuracy, and who are incapable of following it instinctively and unswervingly. My experience leads me to believe that they are in a minority. There are also about an equal number of incompetent and pettifogging scientists, who do not know their place or their limitations. With the great growth in recent years of interest in bird-study, there has undoubtedly been an increase in poor sight-records and misidentifications, and I suppose that juvenile Song Sparrows will be banded as Lincoln Sparrows from time to time. It is true that the modern flood of sight records makes the writing of a local avifauna a far more complex and difficult task than the old-fashioned ones, based on the comparatively small number of birds shot. But it is also true that the modern avifauna is far more complete, detailed, and accurate than the old. For every poor record there are at least fifty good ones, which have greatly extended our detailed knowledge of birds in every State of the Union. If scientists can justly complain of their troubles, when science becomes too popular, let them at least remember, that like everybody else they cannot get something for nothing. And what they have got is the assistance of the enthusiastic, reliable amateur.

I have attempted a definition of the amateur, and have tried to draw a picture of the respects in which the average scientist differs from him, and by inference the way in which the scientific accomplishments of the amateur are ordinarily limited. What, then, is his role? In every branch of natural history it is vitally important. The amateurs are the source of supply for the scientists of the next generation, even if only a small percentage of them become scientists. Secondly, in every branch of natural history, careful and reliable observations or specimens are the foundations of research. These are just what an enthusiastic corps of amateurs have been making or getting since natural history began. The last classic *Gray's Manual of Botany* could not have been written if amateurs had not diligently collected the plants of their several localities and sent them to the Gray Herbarium from every part of the Eastern States to be named. How could Wells W. Cooke have written his classic bulletins on migration without the two million records by amateurs throughout the

country? What would my own little handbook of the birds of the New York City Region have amounted to if the available data had consisted solely of my own records? What conclusions of importance could Lincoln, Wetmore, Witherby, or ornithologists of the future reach, if they had to depend solely on the birds they banded themselves? Wherever I turn in my ornithological work and almost wherever I have gone into the field, the amateurs have been before me and left on record information of the greatest value and help. I, for one, hope most earnestly that they will carry on, in ever-increasing numbers.

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A THIRD SEASON'S BANDING AT SUMMERVILLE, SOUTH CAROLINA

BY WILLIAM P. WHARTON

DURING January, February, March, and April, 1928, banding operations were again carried on in the same general section as that described in the January, 1928 *Bulletin*. In this period a total of seven hundred and four birds were banded, and twenty-seven certain returns were taken. The new bandings were distributed by species as follows:

Blue Jay (*Cyanocitta c. cristata*)	20
Towhee (*Pipilo e. erythrophthalmus*)	36
White-eyed Towhee (*Pipilo e. alleni*)	15
Cardinal (*Cardinalis c. cardinalis*)	25
Vesper Sparrow (*Poœcetes g. gramineus*)	7
Savannah Sparrow (*Passerculus sandwichensis savanna*)	10
Grasshopper Sparrow (*Ammodramus savannarum australis*)	3
White-throated Sparrow (*Zonotrichia albicollis*)	145
Chipping Sparrow (*Spizella p. passerina*)	313
Field Sparrow (*Spizella p. pusilla*)	36
Junco (*Junco h. hyemalis*)	28
Bachman's Sparrow (*Peucæa æstivalis bachmani*)	1
Song Sparrow (*Melospiza m. melodia*)	15
Swamp Sparrow (*Melospiza georgiana*)	1
White-eyed Vireo (*Vireo g. griseus*)	1
Myrtle Warbler (*Dendroica c. coronata*)	3
Pine Warbler (*Dendroica vigorsi*)	2
Hooded Warbler (*Wilsonia citrina*)	1
Mockingbird (*Mimus p. polyglottus*)	4
Catbird (*Dumetella carolinensis*)	4
Brown Thrasher (*Toxostoma rufum*)	21
Carolina Wren (*Thryothorus l. ludovicianus*)	4
Tufted Titmouse (*Bœolophus bicolor*)	1
Ruby-crowned Kinglet (*Regulus c. calendula*)	4
Hermit Thrush (*Hylocichla guttata pallasi*)	4
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