

THE HABITS OF THE GOLDEN PLOVER (*CHARADRIUS DOMINICUS*) IN MASSACHUSETTS.

BY GEORGE H. MACKAY.

AMONG the water birds which annually migrate along the coast of New England, none to me possesses greater interest than *Charadrius dominicus*, the American Golden Plover. One reason for this is its prolonged migration, extending from the shores of the Arctic Ocean to the Argentine Republic, and probably to Patagonia, a distance of nearly seven thousand miles, during which it apparently makes no stop after leaving Nova Scotia, unless compelled to halt by storms or hurricanes, until it reaches its destination. It is while making this migration that their appearance is so eagerly watched for by the many sportsmen on the New England coast, the great uncertainty of their landing in any considerable numbers adding much to the interest and importance of their capture. The reason they are not now as abundant as formerly, is, first, the absence of suitable feeding ground, and secondly the eagerness with which they are pursued, allowing them no opportunity to become attached to any one locality. Civilization has encroached upon and absorbed so many of the fields bordering on the coast, to which they used to resort, that there is little room now left for them.

On the Island of Nantucket I notice a very great change in the amount of ground suitable for them, there being now not more than one-quarter as much as formerly. This in part is due to the increase of the pine trees, scrub oak, bushes, and beach grass which have greatly encroached upon the open fields, and in part to the absence of considerable numbers of sheep and cattle which formerly roamed at large and kept down the grass; for the Golden Plover dislikes to alight or run in grass which is high enough to touch the feathers of the breast. Another cause is the fact that the sportsmen go out to shoot them at the commencement of the storm which causes them to seek land, and follow them up unceasingly until a change of weather gives the harassed birds an opportunity to continue their interrupted migration. This mode of procedure is just the reverse of what prevailed in former times, when few people pursued them. They were then

allowed to remain undisturbed on alighting, and the first comers called down others that were passing; they thus became accustomed and attached to certain localities, and as a rule remained in varying numbers on the Island of Nantucket until late into November. As many of the same birds doubtless pass over the same ground year after year, they naturally shun the localities where they have been harassed, and becoming leaders of the migratory flocks, do not stop unless compelled by stress of weather. Of late years it has become quite evident that they have no intention of stopping on the New England coast after leaving Nova Scotia, as their course is considerably outside of it (two hundred miles or more). Their presence here, therefore, is purely the result of tempestuous weather, as the occurrence of south-easterly or north-easterly storms, thunder and lightning with rain, or thick fog with a south-west wind, while they are on their passage, by which they are driven from their course, confused, and deflected to the westward; in which event they pass along the New England coast, and over the outlying islands and promontories. They are then eagerly pursued and many killed.

When in Massachusetts they frequent the extensive marshes, and the large tract known as the common pasture near Newburyport; on Cape Cod they seem to prefer the long reach of sandy hills, old fields where the grass is short and the vegetation scanty, sand flats left by the receding tide, ploughed fields, and any burnt tracts which are clear of trees and bushes. On Nantucket Island they mostly prefer the south and west portions of the Island, where there are extensive and undulating plains interspersed with fresh ponds. It is here that I have particularly observed *C. dominicus* during the past sixteen years. When on the ground they run rapidly and gracefully, and soon scatter on alighting. After running a few yards they suddenly stop, hold the head erect, and look around, all the movements being very quick. In feeding, they seem to strike at the object with a motion that reminds one of a Loon or Grebe commencing to dive.

Various authorities state that along the Atlantic coast the food of the Golden Plover consists principally of grasshoppers, on which they become very fat. I can only say, in answer to this statement, that in my experience I have never seen them eat any, and I have watched them when on the ground quite near, as well as through a strong a field glass. I have also examined

the stomachs of a good many which I have shot on Nantucket, and have never found any grasshoppers in them, nor in fact anything but crickets (which seem their principal food there), grass seeds, a little vegetable matter, like seaweed, coarse sand, and small stones. I have also frequently shot them with the vent stained purple, probably from the berries of the *Empetrum nigrum*. I have rarely seen a poor or lean bird that landed while making the southern migration. While they are not all in the same condition, they are, as a rule, quite fat. The eye is dark hazel, very lustrous, and appealing, and is their most beautiful feature to my mind. Those birds killed soon after landing have the bottoms of their feet quite black; after living on the Island awhile, they turn whitish. I have no reason to offer for this change.

Their local names along the coast are numerous, and among them are Greenback, Palebelly, Palebreast, Greenhead, Bullhead, Toadhead, Frostbird, Blackbreast, and Threetoes.

When scattered over considerable ground, as is usual after they have been any length of time on their feeding ground, every bird apparently on its own hook, if alarmed, a note is sounded; they then rise so as to meet as soon as possible at a common centre, which gained, away they go in a compact body. When high up in the air, flying on their migration, I have often noticed the flocks assume shapes that reminded me of the flight of Geese; they also fly in the form of a cluster, with one or more single lines out behind; also broadside in long straight lines, with an apparent velocity of about one and a half miles a minute, measured by the eye as they pass along the headlands. When flying near the ground they course over it at a high rate of speed, in every variety of form, the shape of the flock constantly changing, and frequently following every undulation of the surface, stopping suddenly and alighting when a favorable spot is noticed. They are extremely gregarious, and I have had the same flock return to my decoys as many as four times, after some of their number had been shot each time. When approaching the decoys every bird seems to be whistling, or, as I have often expressed it, uttering a note like *coodle, coodle, coodle*. During the middle of the day they are fond of seeking the margins of ponds, where they sit quietly for a long time, if undisturbed. When disturbed they are almost certain to return, in a short time, to the same spot from which they

have been started, that is, if they have been resting or feeding there any length of time. When suspicious, it is very difficult to approach, decoy, or call them; if not harassed, they are as a rule quite tame and gentle, and can be easily driven up to with horse and wagon.

The young birds, or 'Palebellies' as they are called by the local gunners, are inferior in size to the old black-and-white-breasted birds. Their plumage is ashy gray all over, relieved with spots of pale yellow on the top of the head, back, and rump, they having none of the bolder and well-defined markings of the old birds, in which the white line of the forehead, running over and back of the eye down each side of the neck, is the most prominent at a distance. These young birds invariably appear wild and wary, much more so than the old ones. They are also very erratic in their movements and flight when with us. They usually will not pay so much attention to the decoys or call-whistle as do the old birds; and I have seen them, when very shy and after being disturbed, mount up into the air and nearly turn over on their backs while flying with great velocity. It is a noteworthy fact that, when a flock of these young birds is approaching, no dependence can be placed on their movements. They may sometimes sweep down within a few yards of the sportsman, passing with great rapidity over his head, all scattered; or down close to the stand and then up into the air; or they may turn suddenly. My experience has taught me not to wait, as is my custom with the older birds, to get them together before shooting, but to fire at them whenever and wherever I can, if they are within range. The older birds rarely indulge in any similar antics. These young birds seem to migrate by themselves, and at a later date than the old ones, not appearing in New England, as far as my experience shows, till from one week to four after the arrival of the older black-and-white-breasted birds. I have notes of one such landing, on the Island of Nantucket, as late as October 1, 1882. This, however, is the latest date I have ever known.

While I have continually shot the young birds on Nantucket, and in other parts of Massachusetts, their arrival is a much more uncertain event than that of the older birds, there being some years when I have seen none, and others only a few. I have never known a year when they were anything like as numerous as I have seen the older birds.

It is unusual to see any but scattering birds before the tenth of September; the years when they are not seen they undoubtedly pass outside of the coast line, with favorable weather. In order to convey some idea of the date when *C. dominicus* annually makes its appearance, I copy from the notes of a friend the dates of its arrival on Cape Cod, from 1858 to 1875, and on Nantucket from the latter year until 1890 from data of my own, thus covering a period of thirty-two years, there being no record for 1876.

1858. First birds shot Aug. 31; last birds shot Oct. 19.
 1859. First birds shot Aug. 29; last birds shot Sept. 25.
 1860. September. Some shooting during the month.
 1861. First birds shot Sept. 5; last birds shot Oct. 12.
 1862. No birds.
 1863. No birds of any account until Sept. 5, when there was an immense flight.
 1864. Some birds in September.
 1865. No flight.
 1866. A few birds in September; no flight.
 1867. A flight Aug. 31; last birds shot Oct. 20.
 1868. September. Only a few this year.
 1869. No flight this year, and only a few birds killed.
 1870. A flight Aug. 29; fair shooting until Oct. 6.
 1871. First Plover shot Aug. 25; not a very good year.
 1872. First birds shot Aug. 29. Hard southeast rain storm on night of 29th; small flight.
 1873. First birds shot Aug. 23. A good many birds on Aug. 29.
 1874. Scarcely any.
 1875. First shot Aug. 30.
 1877. First birds shot Aug. 27. Severe rain storm night of Aug. 26; small flight of Plover and Eskimo Curlew. Last birds shot Oct. 5.
 1878. First birds shot Aug. 26; rain the night before; some Plover and Eskimo Curlew landed. Last birds shot Oct. 22.
 1879. First birds shot Aug. 26; a number of Plover landed the night before. There were three or four small flights in September. Last Plover shot September 29.
 1880. First Plover shot Aug. 26. Saw three on the 22d. Sept. 7, a large flight of old birds; shot 108 on the 7th and 8th. Sept. 9: raining and blowing last night; a flight went over the town of Nantucket, but did not stop. Last birds shot Sept. 28.
 1881. First birds shot Aug. 16. Small flight Aug. 19; 300 to 400 birds landed; weather foggy; wind northeast; two heavy rain squalls in the afternoon. Sept. 2: a large flight of Plover and Eskimo Curlew landed last night; wind northeast and weather thick. No young birds this year. Last birds shot Sept. 10.

1882. First birds shot Aug. 22. Last birds shot Oct. 3. A great many *C. dominicus* passed over without landing during the week prior to Aug. 30. Sept. 25: last night a considerable flight of young birds; wind north-east, light rain; afterwards storming hard. Sept. 30: quite a flight of young birds landed in northeast rain storm; shot 50. Oct. 2: about 400 young birds landed on east end of Nantucket.

1883. Aug. 25: last night and to-day a large number of *C. dominicus* and Eskimo Curlew landed, in about equal numbers; a severe northeast storm. First flock of *C. dominicus* arrived Aug. 16.

1884. First birds shot Aug. 26. On July 28 John M. Winslow shot a lone *C. dominicus* which was emaciated, the earliest record of one being taken on Nantucket Island. Aug. 31, large flight went by in clear weather in the afternoon; wind light, southeast. The poorest year I have ever known.

1885. Aug. 23, first birds shot. Heard of two killed on Aug. 17. Last birds shot Sept. 23. Had only killed half a dozen young birds up to Sept. 1.

1886. First birds shot Aug. 22. August 24, a severe northeast storm with rain and lightning. The largest flight for a number of years; some two thousand birds landed. Only two young birds shot up to Sept. 12. Last birds shot (7 young birds) on Sept. 27.

1887. Aug. 25: considerable number of old birds landed; northeast rain storm last night; all gone the next day. First birds shot Aug. 28. Did not see a young bird this year.

1888. August 28: thunder shower last night; wind about south; a flight passing over the town; only a few scattering birds landed, as weather cleared at 10.30 p. m., with wind west by north; first Plover shot. Sept. 2: a small flight, but few landed; wind westerly, foggy; light rain at times until 7 a. m when it cleared; for the past week large numbers of *C. dominicus* have been passing the Island every night; scarcely any landed. Last birds shot Sept. 24. No young birds this year.

1889. First birds shot Aug. 20. Quite a flight Aug. 23, but none landed. Sept. 11, small flight of *C. dominicus*; both old and young birds, and also some Eskimo Curlew. The poorest year I have ever known.

1890.* First birds shot Aug. 25. August 22 and 26 a flight; none stopped on either date; on the 26th the wind was south, raining. Only about fifty birds altogether shot on the Island. This makes the poorest yearly record up to date. Last birds shot Sept. 29. About half of above birds killed were young.

It will be noticed from the foregoing that the older birds of this species seem to come along with much more regularity than

* I have since learned that there was a flight of Golden Plover along Cape Cod Aug. 23, 1890. About 2500 birds (estimated) were seen, flying rather low; only a few scattering birds stopped, although the weather was thick, rainy, wind southeast; they were headed south. None were noted on Nantucket on this date.

the younger ones. It would seem to require certain conditions of weather, and time of migration to make the young birds land on our coast, and the rare occurrence of these conditions must account for the irregularity of their appearance.

The question may be asked why the Golden Plover remain, or come here at all. The answer is that they do not remain any longer than is absolutely necessary, and land only under stress of weather; for the moment a clear streak is visible on the western or northern horizon, at the end of the stormy weather which has forced them to land, and a few puffs announce that the wind is soon to change and the weather to clear, almost every bird takes flight from these inhospitable shores, mounts high into the air, and steers for the South; where many may have been yesterday, none remain today. When tired, in moderate weather, they have been known to alight on the ocean; at least so I have been informed by some of the men on the South Shoal Light-ship, which is anchored twenty-five miles off the south side of Nantucket Island.

J. P. Giraud, Jr., in his 'Birds of Long Island' states that the Golden Plover arrives there in the latter part of April, on the way to the North. I have, however, never seen any recorded, and have heard of but three *C. dominicus* being taken, in New England in the spring, one being on Nantucket, one at Dennis, Cape Cod, and one at Scituate, Mass. Personally I have never met with it at this season of the year.

As far as my observation shows on the Island of Nantucket, the Golden Plover usually seeks land about dusk and during the first half of the night. I can recall but three occasions when they landed during the daytime, and on two of those in very inconsiderable numbers. It is usual several times during the migrating period to hear them whistling as they pass low down over the town of Nantucket; but on these occasions, unless it is storming hard, they do not stop, but pass on, if the wind is fair (northeast). I have been many times disappointed on driving over the Plover ground at daylight on the following morning to find that no birds had stopped. In other words, it is a most difficult matter to 'hit the flight,' for it requires a combination of circumstances and weather which rarely happens, to enable one to obtain any number of these birds on the Atlantic coast.

In regard to the numbers of these birds formerly, and at the

present time, I would say that it is extremely difficult to arrive at any correct conclusion, this arises from the fact that the migration almost always passes by, or over the Island, after dark, and our means of judging is by comparison with others of the number of flocks heard whistling as they flew overhead. It is however certain that for a number of years fewer birds have stopped on the coast than formerly, and for a shorter period. We are, however, liable any year, when all the conditions are favorable, to have an immense landing.

To those interested in this direction I give the following result of some inquiry I made recently of two game dealers in Boston. About four years ago the shipment of Golden Plover, Eskimo Curlew, and Bartramian Sandpipers first commenced in the spring, and it has been on the increase up to date. Last spring (1890) these two firms received from Nebraska (principally), Saint Louis, and Texas (Fort Worth) *twenty barrels* of birds, one third of which were Golden Plover, two thirds Bartramian Sandpipers; *eight barrels* of Eskimo Curlew; *twelve barrels* of Eskimo Curlew and Golden Plover. As there are *twenty-five* dozen Curlew, and *sixty dozen* Plover each to a barrel, it will be realized what this means, if other large cities are similarly supplied. All were killed on their northern migration to their breeding grounds. Therefore while we may not be able now to answer the question: are they fewer than formerly, we shall be able fitted to do so in a few years.

A LIST OF BIRDS OBSERVED AT SANTAREM, BRAZIL.

BY CLARENCE B. RIKER.

With Annotations by Frank M. Chapman.

(Continued from Vol. VII, p. 271.)

76. *Pipra aureola flaviceps* (Scl.).—Two adult males taken July, 1887, in low fruit-bearing trees growing in a semi-palm forest.

[I refer these specimens to *flaviceps*, as both exhibit a white spot on the outer rectrix. They are, however, indistinguishable from a Cayenne specimen.—F. M. C.]