

intersected this highway of our earliest aviators, and so figured out that land could not be far away. But, according to scientists who have gone into the matter, these birds were only following the places where land used to be until the sea engulfed it. One of these scientists points out that there are two lines of flight, one running east of the Gulf, and one west of the Gulf; and he even shows that some species, like the bobolink, which ranges west across the continent, go south to the eastward of the Gulf. The bobolink did this, no doubt, long before the rice fields of Georgia and Alabama were planted.

The route of the Golden Plover.

Our birds do not migrate now in the large numbers they once did, but even in the past much of the flight was not noted because the birds traveled at night. Very interesting, indeed, it is to hear them in the night, calling, whistling or honking as they travel all unseen. Sometimes, unerring as is their instinct, they go astray, though this is most often when they are confused by the evidences of civilization. Once, on a foggy night, in a Red River valley town, some ten years ago, there was a great flight of golden plover, which, for four or five hours, passed above the town. In some way the lights seemed to confuse them, and although, without any doubt, the flight was an enormous one, some birds seemed to circle and hesitate. The air was full of their calls, and so curious was the phenomenon that all the inhabitants were out on the streets, and the next day the papers made much comment. This was in the spring migration. Such an experience, curious as it was, is not apt again to come to one in those parts to-day. You may, on some moonlight night, hear the honk of the wild goose passing over the unseen trails or perhaps, if very fortunate, on a brilliant moonlit night may see some dark shadows passing high up in the air against the moon. The journeys of the plovers, the snipes and woodcock, the coots and lesser ducks, and many of our song birds, take place at night, but we are most apt to become aware of the great migration: by seeing in the daytime passing flocks of geese or ducks bound one way or the other. One of the cheeriest sounds the Western farmer ever heard was the honking of the wild geese going north.

The spring migration is more apt to be noisy and demonstrative



than that of the fall. In the mating season, when the plumage of the birds is most brilliant, they are most vociferous and, for that reason, perhaps, most easily captured, although the spring duck or goose, to use a paradox, is older than those that you see going south in the fall and should be wrier. In the fall the birds are more methodical and more sober, and the plumage of the new young is not yet so brilliant.

Even in the city parks you may, in the fall, notice the numbers of robins, bluebirds or blackbirds—not so many bluebirds as formerly, for that species is now becoming scarce. It is the sports-

snap approach and on the next day all the covers are bare and deserted. The birds have gone south in the night time; just when, no one knew. Behind them a few stragglers may linger, perhaps some cripples abandoned on the marshes, perhaps some foolish individuals, for birds sometimes make mistakes, as early robins and bluebirds do in the spring when they get caught in the snow. But the bulk of the feathered life will between two days mysteriously have vanished. What line did they take? We should have to go back far into geology to answer that question. We only know that in a general

thousand miles a day, if necessary, and our spring ducks are lean and thin, not because they have lost flesh on the wing, but because they hung on too long to poor food before they started. Most of them stop "to take in more gasoline" from time to time, when they find good marshes which they long have known to be full of food. Their tarrying on the northbound flight is not from inability to fly, but from inability to feed. They follow the line of the vanishing ice and go north as fast as the waters open. Although they pass north or south in the daytime, as any wild fowler knows who has marked the travelers coming down in long spirals from the upper air to examine a marsh, they also travel at night, and the coots, or mudhens, seem to travel exclusively at night, or at least are not seen passing in the daytime. To watch this slow and clumsy bird flapping along in the endeavor to take wing ahead of your boat you



Ready for the morning flight. The Watchman on the 'Highway of the Air'

man who goes abroad in autumn, however, say in early October in the mid-latitudes, who has the best chance to see the migrations of the birds. Sometimes the crows begin to band up then and the blackbirds are very noisy and busy getting together their armies. In some strange way the woods have become full of robins and there are more blue jays flitting and screaming among the trees. In the fields the meadow larks are chattering and moving about restlessly, though not singing so melodiously as in the spring. Perhaps three-quarters of all the birds you see have come from some point farther north. They may proceed leisurely if the weather be pleasant, but let a cold

way the seacoast and the great interior river valleys, as they exist in this geological age, are natural highways for them.

Good Shooting in the Rockies.

We speak of the migratory line of wild fowl as moving farther to the west, but it is quite likely that this line existed in the remoter regions even before we knew about it. The old skin hunters found ducks in every water hole of the great plains. The Rocky Mountains, strange as that may seem, offer some of the best duck shooting in the country.

The length of time on migration varies. A duck can fly a

would not think it could fly far or fast; yet it seems to get up into the air and go south in the fall with a longer and more determined flight than almost any other sort of wild fowl.

Woodcock and snipe travel at night, not usually in large parties. The birds that have frequented your covers on marsh lands will lessen in numbers, little by little, until at last you cannot find one left. They do not band up like the blackbirds. Ducks begin to go north from the Gulf coast by the middle of February or earlier. The first flights reach the region north of the Ohio River by the middle of February, though the heaviest flights are in March, reaching the international boundary about the middle of April. The state of weather ahead and behind the flight determines its rate of progress, either in spring or fall.

The fact that land or water game has a definite line of travel, whether on the earth or in the air, is familiar to most sportsmen, who know that the deer of the forest will have local runways cut deep in the soil through immemorial time, as well as known migration trails, whether they are deer in Manitoba or caribou in Newfoundland; and that the wild fowl will usually hang to their old lines of flight. Sometimes, however, there are freakish migrations which do not seem to depend upon weather or food alone—for instance, those of the ruffled grouse.

Continued on page 70

