

habit that its development is not only possible but very probable, and just what the student of evolution would expect.

This scattering of the younger individuals, however it was brought about, would then favor the extension of the migration range by the ones thus driven to wander from their accustomed haunts. As further substantiation of this, it is to be noticed that birds found far from their natural haunts are usually immature specimens.

A young bird on its first spring migration, would naturally return to the familiar place where it was raised. Being driven away from here, it would wander about until it found a suitable location for its own breeding — perhaps a mile, perhaps two, maybe less, away from its original home. The succeeding years, it would return to this new haunt, and the range of the species could be extended by its offspring. Thus, each bird would follow the route taken by its parents, and thus each point on a migration route would indicate the place that was once the ultimate goal of the migrations of its ancestors.

Migrations to true oceanic islands are more difficult to explain along these lines, but I do not think that they invalidate the reasoning in any way. Migrating birds certainly have wonderful, and as yet mysterious, senses of location and direction, and it is not too much to say that a bird, once it has traveled a certain journey, is usually able to find its way over the same path again. A pair of birds have only to be storm-blown to one of these isolated spots, breed there, and return with its progeny, to start a tendency in their offspring to migrate to the same place again. As long as the least tendency to an advantageous migration were started, natural selection would confirm, increase, and fix the habit firmly; and along with this, the new senses, structures and habits necessary to their accomplishment. It is unlikely, however, that this type of migration could be started until after certain powers and senses had been developed by migrations to other localities. They must, therefore, be regarded as secondary movements originally, though in some cases they have become now the prime or only migrations of the species by the extermination of all those individuals that adhered to the original routes.

The return movement in the fall is the same thing, nearly, as