

the numbers of lost swallows often met with by ships in the Atlantic: the migratory salmon, also, often fails in returning to its own river, "many Tweed salmon being found in the Forth." But how a small and tender bird coming from Africa or Spain, after traversing the sea, finds the very same hedge-row in the middle of England, where it made its nest last season, is truly marvellous.*

Let us now turn to our domesticated animals. Many cases are on record of animals finding their way home in a mysterious manner, and it is asserted that Highland sheep have actually swum over the Frith of Forth to their home a hundred miles distant;† when bred for three or four generations in the lowlands, they retain their restless disposition. I know of no reason to doubt the minute account given by Hogg of a family of sheep which had a *hereditary propensity* to return at the breeding season to a place ten miles off, whence the first of the lot had been brought; and, after their lambs were old enough, they returned by themselves to the place where they usually lived; so troublesome was this inherited propensity, associated with the period of parturition, that the owner was compelled to sell the lot.‡ Still more interesting is the account given by several authors of certain sheep in Spain, which from ancient times have annually migrated during May from one part of the country to another distant four hundred miles: all the authors§ agree that "as soon as April comes the sheep express, by curious uneasy motions, a strong desire to return to their summer habita-

* The number of birds which by chance visit the Azores (Consul C. Hunt, in *Journ. Geograph. Soc.*, vol. xv, Pt. 2, p. 282), so distant from Europe, is probably in part due to lost directions during migration: W. Thompson (*Nat. Hist. of Ireland*, "Birds," vol. ii, p. 172) shows that N. American birds, which occasionally wander to Ireland, generally arrive at the period when they are migrating in N. America. In regard to Salmon, see *Scope's Days of Salmon Fishing*, p. 47.

† *Gardener's Chronicle*, 1852, p. 798: other cases are given by *Youatt on Sheep*, p. 377.

‡ Quoted by Youatt in *Veterinary Journal*, vol. v, p. 282.

§ Bourgoanne's *Travels in Spain* (Eng. trans.), 1789, vol. i, pp. 38-54. In Mills' *Treatise on Cattle*, 1773, p. 342, there is an extract of a letter from a gentleman in Spain from which I have made extract. *Youatt on the Sheep*, p. 153, gives references to three other publications with similar accounts. I may add that von Tschudi (*Sketches of Nature in the Alps*, Eng. trans., 1856, p. 160) states that annually in the spring the cattle are greatly excited, when they hear the great bell which is carried with them; well knowing that this is the signal for their "approaching migration" to the higher Alps.