

CHAPTER IV.

Return to Sutherland—Travelling from Edinburgh—Skye Terrier; peculiarities of—Lairg—Loch Shin—River Shin—Reserve of the English—Mr. Young's experiments respecting Salmon; Anecdotes of Salmon; Manner of Spawning; Food of Salmon—Drive to Aultnaharrow—Curlews, etc.—Loch Naver—Phalaropes—Widgeon—Green-shank, etc.

June 9th.—HAVING been called suddenly to England in the midst of my rambles in Sutherlandshire in May, I did not find myself again in that county till the 9th of June. Travelling (that is, the mere act of passing along the road) takes up very little of your time nowadays. You go from London to Edinburgh in about thirteen hours, and a good steamer takes the traveller from Granton Pier to Invergordon in Ross-shire quickly and comfortably enough; that is, I left Granton at 6 A.M. on the 6th, and landed at Invergordon early in the evening of the 7th, accompanied only by a Skye terrier, who from his earliest childhood, or rather puppyhood, has always managed to stick closely to me. In wild-fowl shooting, when no dog is required save a quiet retriever, Fred (so was he christened by some of my children) is always allowed to accompany me,

as from his quiet discretion he is never in the way. In roe-shooting also he is allowed to remain at my feet while I am waiting in a pass. At the same time, if permitted to hunt, no kind of animal, running or flying, quadruped or biped, comes amiss to him, and he is equally at home in any ground, rock, or loch. There is a kind of quiet, discretionary courage that some of these rough terriers have which is very amusing—nothing seems to put them out, and Fred is as much at home in a crowded railway station or London street as he is in a furze-cover. He rather annoys me sometimes when travelling, for as soon as he has seen me safely housed in an hotel, he is very apt to wander off in search of adventures and acquaintance of his own through the town, wherever it is ; and although it may be a new place to him, he invariably finds his way back to my room for the time being, regardless of all obstacles in the form of waiters, chambermaids, etc. I used to be afraid of losing him, but after some experience of his ways, I find that I may safely leave him to his own devices ; for having once or twice despatched ostlers and boys in all directions to search for him, I perceived that he always came back alone, looking rather ashamed of himself, and not venturing to make himself very prominent in the room till he had examined the expression of my

face from under a chair or sofa, for dogs are great physiognomists. Then, on seeing that I am generally too pleased at his return to be angry at his absence, he comes out of his place of refuge wriggling his long rough body about in all sorts of coaxing but uncouth attitudes, and at last, putting his honest rough face in my hand or on my knee, he finds that peace is declared, and he waits patiently till I take hat in hand again; for once having explored the streets, he seems to take no further interest in the place.

There is no end or limit to the quaint conceits of some terriers of this kind, when they live in constant intercourse with their masters. Fred's great attachment to my children, too, makes him a universal favourite in the house, and he walks about with them amongst their pet animals, apparently taking as much interest in them as the children do themselves. I must say, however, that he requires a formal introduction to any new living acquisition of this kind; but once introduced to them, they are safe from his strong white teeth for ever.

These terriers are excellent swimmers, and are apparently as much at their ease in the water as on land. Fred is as web-footed as an otter. Some dogs dislike accompanying one to the river side only to look on. Indeed, one retriever which I had be-

came so bored and *ennuyé* with this work, that at last I had only to show him my fishing-rod to induce him immediately to retire to some hiding-place rather than be asked to accompany me. Another retriever, on the contrary, always took the most lively interest in my fishing, watching the fly and getting into a state of great excitement whenever I hooked a fish: indeed, if allowed to do so, he would go in and land the fish, taking it carefully and delicately by the back in his teeth; but as he often got entangled in the line and did mischief, I was obliged to stop this. A great treat, however, to this dog was to put some living sea-trout into any shallow pool, where he could catch them and bring them one by one to whoever carried the fishing-basket.

I have no doubt that many wild animals, such as the fox, wild-cat, polecat, etc., catch numbers of fish during their nocturnal wanderings. Their tracks about the water's edge have frequently convinced me of this: the fish, too, being apt to take to the shallows at night, are easier caught than in the daytime.

To return, however, to Sutherlandshire. On the 7th of June I arrived at the good town of Tain, and on the 9th was at Lairg Inn. An excellent place of rest, too, is the inn at Lairg, and the situa-

tion beautiful beyond description—at any rate it is so on a fine day; but situated as it is at the end of Loch Shin, a Highland lake about eighteen miles in length, the prospect from the inn windows must be very different on a wild autumn day, with wind and sleet driving up from the west, from what it was on the fine June evening on which I arrived. The view combines the most happy mixture of mountain, water, and green herbage, dotted with fine old birch-trees: a few picturesque buildings, too, which are seen from the inn, add to the happy and *riant* expression of the scene.

The Shin river, which runs out of the lake near the inn, is a fine and picturesque stream, charming to the eye of both painter and fisherman. The Shin salmon are of a large size and very plentiful. I stopped for half an hour or so at the falls, two or three miles from the lake, and saw a great number of salmon, and even trout, leaping; some of them succeeded in passing up, others fell back into the pool below, in consequence of not having leaped with sufficient strength, or from having miscalculated the distance and angle at which to take the leap. All the scenery about the falls of the Shin is very beautiful: the steep and lofty hill which comes down to the water's edge is covered with wood, and, at this time of the year, was alive

with singing birds of all kinds ; whilst the coo of the wood-pigeon, and the shrill cry of the kestrel as she hovered with quivering wings over our heads, combined to please the eye and ear.

We were rather amused with the truly English determination which was shown by a gentleman (who, like ourselves, was admiring the falls) *not* to enter into conversation, or indeed to admit that he was aware of our presence. Perched on the extreme point of rock overlooking the falls, for above half an hour he turned his back most resolutely towards us, as we sat immediately behind him.

It is part of the nature of Englishmen to look upon all strangers as intruders, if not as enemies ; and yet many a pleasant acquaintance and friendship have I formed without any formal introduction, being, I am happy to say, un-English enough not to be afraid of committing myself or of losing caste by addressing a stranger. Throughout life I always find that civility is met by civility, wherever it may be bestowed. At the same time nothing is easier than to put a stop to impertinence should one meet with it.

En route to Lairg I called on Mr. Young, who is manager of the Duke of Sutherland's fisheries in the county. He received me with great civility, and kindly gave me much curious and interesting

information respecting the habits of salmon and trout, having studied their natural history, and having lived, as it were, amongst fish during his whole life. Mr. Young has made such good use of the opportunities which his position has afforded him, that he has thrown considerable light on the history of the inhabitants of an element in which we cannot follow them. His patience in trying experiments with the spawn and young of the salmon has enabled him to explain many parts of their history which had hitherto been obscure, or at best but imperfectly understood. The encouragement, too, which he has always met with from the Duke, has still further enabled him to bring a naturally acute and inquiring mind to bear on the point in question. For some years he managed (by forming artificial spawning-beds or ponds) to have the ova under his immediate observation from the hour of their being deposited to the time that in the shape of "smolts" (I think that is the local name) of four to six inches in length, the young salmon go down to their mysterious feeding nurseries in the depths of the ocean. Mr. Young kindly showed me numerous specimens preserved in spirits of wine of the gradual development and growth of the fish from its egg state, when it looks like a small pea, to its full maturity.

Strange as it seems, it would certainly appear from his observations that a salmon may be kept for any length of time in a river without growing beyond the weight of two to four ounces, and he showed me specimens of salmon which, though of perfect form and condition, did not exceed that size ; whereas, had they been allowed to reach the sea, they would at the same age have weighed from six to ten pounds each. The growth of salmon when in the sea is wonderful, it having been indisputably proved that a salmon has grown eleven pounds six ounces during the short period of five weeks and two days : the fish having been marked on its passage to the sea, was caught again in the same river when ascending, after an interval of that duration.

The destruction of salmon during their passage to and residence in the sea must be wonderful, and defies all calculation. Did all the fish which descend as fry return as salmon the rivers would not hold them. Their enemies are countless ; every fish and every sea-fowl preys and fattens on them. At the mouths of rivers, and indeed at every shallow on their passage, thousands of gulls and other birds prey upon the fry, while trout and eels are feeding on them under water. As soon as they reach the sea, too, fish of all kinds are ready to devour them.

Mr. Young told me also that his young family of salmon fry which he hatched and kept confined in ponds connected with the river always become perfectly tame, and the moment that he steps on the plank laid across the ponds for the purpose of feeding the fish from, they all flock round him ready to dart at the food he puts in. In some of the ponds he had put a number of small eels, which soon grew in size and became as tame and familiar as the young salmon. As the cold weather came on the eels all disappeared, and he supposed that they had managed to escape, led by their instinct to take refuge in some deeper pools. However, one fine spring day, when he had long ceased to think of his slimy pets, he happened to pass over one of the planks, when he was delighted to see them all issue out from under the stones asking for food, as if a day only, instead of many weeks, had passed since he last had fed them. Does not this most clearly prove that eels lie dormant during cold weather?

I asked Mr. Young if he could explain why at the mouths of rivers, when angling, one always catches such a variety of trout—a variety which does not exist at some distance from the sea, each and every stream having its own peculiar species. His opinion, founded on practical experiment and

long experience, coincided much with mine founded on mere casual and unscientific observation, namely, that the sea trout and river trout sometimes breed with each other, thus forming a great variety of shade and colour. He also states that the female salmon will breed with a male trout, which he says has been clearly proved by close observation, in the following manner:—A pair of salmon, male and female, being seen forming their spawning-bed together, the male salmon was killed with a spear and taken out of the water. The female immediately dropped down the stream to the next pool, and after a certain interval returned with another male. He having shared the same fate as his predecessor, the female again went down to the pool, and brought up another male. The same process was gone on with of spearing the male, till the widowed fish, finding no more of her own kind remaining in the pool, returned at last accompanied by a large river trout, who assisted her in forming the spawning-bed, etc., with the same assiduity that he would have used had she been a trout instead of a salmon; the female appearing to be determined that her ova should not be left in the gravel without being fertilised by the male, thus taking the trout as a *pis aller*, and carrying out the proverb—“si on n’a pas ce qu’on aime, il faut aimer ce qu’on a.”

The process of preparing the spawning-beds is curious. The two fish come up together to a convenient place, shallow and gravelly. Here they commence digging a trench across the stream, sometimes making it several inches deep. In this the female deposits her eggs or ova ; and she having left the bed, the male takes her place, and deposits *his* spawn on the ova of the female. The difference may be perhaps easily exemplified by the *soft* and *hard* roe of a herring ; the former being that of the male, and without this the hard roe or ova of the female fish would be barren. When the male has performed his share of the work, they both make a fresh trench immediately above the former one, thus covering up the spawn in the first trench with the gravel taken out of the second : the same process is repeated till the whole of their spawn is deposited, when the fish gradually work their way down to the salt water to recruit their lost strength and energy.

The spawn is thus left to be hatched in due time, but is sometimes destroyed by floods, which bury it too deep, or sweep it entirely away ; at other times it is destroyed by want of water, a dry season reducing the river to so small a size as to leave the beds exposed to the air. The time required to hatch the eggs depends much on the state of the weather ;

in warm seasons they are hatched much quicker than in cold. The details I have here given are very imperfect; but perhaps they may induce those interested in the subject to read a little work published by Mr. Young, the result of his observations and experience for many years.

It is a common opinion that no food is ever found in the stomach of a salmon; but this is quite erroneous. On first entering the rivers they are often perfectly gorged with small eels; fry and even good-sized herring are constantly found in them; showing that the salmon is as voracious a fish as his cousin the trout. When in fresh water they do not seem to have the same voracity. That they do feed on small fish, etc., however, in lake and river, cannot be doubted, as we know that trolling with parr is as efficient a way of killing salmon in several waters as fly-fishing, though not so generally practised: nay, many a salmon dies an ignoble death from taking a worm.

This year I was fishing on a river in the north of Scotland, near a town where there was plenty of anglers, young and old, good and bad. There was one old piscator, who was most assiduous in his attention to the river, and whom I have seen for hours together at one small pool, changing his bait from fly to worm and from worm to fly, as he fancied

the inclinations of the fish might be turned at the moment. One day we saw him in his usual position at the head of a rocky pool, and found that he had risen a salmon. After tempting the fish with every fly contained in an old bible, which served as a fishing-book, without success, he told us, as we greeted him in passing, that he *would* have the fish before dark: and sure enough, late in the evening, while taking a stroll up the river, we met the old gentleman coming home, and after a little coquetry on the subject, he produced *the* salmon, wrapped up in a snuffy pocket handkerchief and crammed into his trousers, where he carried it in order to avoid notoriety on the subject. Not having permission, I fancy, to kill salmon in the river, he had killed the fish with a worm late in the evening, after everything else had failed.

The first few miles of the drive from Lairg to Aultnaharrow we skirt the edge of Loch Shin, passing through a beautiful wood of birch, at this season (June) full of singing-birds, wood-pigeons, etc. Beyond this we pass for many miles through a desolate and dreary-looking range of hill ground—the more desolate-looking too from the ground being covered with a kind of coarse grass, instead of the rich brown red of the heather. The number of curlews and golden plovers is very great all

along this grassy tract of country. The plovers are very tame, running along the road in front of the horse, and at last only flying a few yards to some higher hillock or stone, where they stop watching us till we pass. These birds have their nests rather high up on the hills : their eggs are peculiarly large and beautifully marked, the prevailing colour being a brown, shaded and spotted with darker markings of a brownish-green colour. It is very difficult, however, to describe the eggs of many of these birds, no two of them being exactly alike. The curlews are far more shy and wary, and as long as we are within sight they keep up a loud unceasing cry of alarm, wheeling round and round, but generally at a tolerably respectful distance. I saw some young curlews on the ground, and got out to examine them ; they are curious, long-legged, top-heavy, little fellows, and when pursued seemed to trip themselves up in their hurry, and to tumble head foremost into every hole in their way. The bill of the young bird is as short as that of a golden plover. When I held it in my hand to examine the curious plumage, or rather down, which covered it, the little bird looked up at me with its great dark prominent eye with such an expression of confidence and curiosity, that had I been the most determined collector of specimens of birds, I could

not have refrained from putting him carefully down on the ground again : when I did so he ran up to the top of a little grassy hillock, and looked round for his screaming parents, who, at a safe distance, were wheeling with a most wonderful outcry round the head of my terrier.

One cannot understand why a curlew's bill should be curved in the curious manner in which it is. The end of the bill is, like that of a woodcock, furnished with a set of delicate nerves to enable it to feel its food under the ground. In those parts of the country where curlews are numerous, the moist turnip fields are generally bored all over by them. I tried for trout in Loch Naver (close to the inn at Aultnaharrow), and caught some fine and excellent fish for our supper.

In the swampy ground near the west end of the lake a vast number of birds seem to breed. Snipes, curlews, redshanks, plovers, etc. etc., all keep up a constant cry of alarm on any intrusion into their dominion. While I was fishing Mr. Dunbar called my attention to two beautiful little birds near the edge of the water, which he pronounced to be the red-necked phalarope. Not having any specimens in his collection, he went to the inn for a gun, while I sat down to watch them. The red-necked phalarope is certainly the most beautiful little wader of

my acquaintance. There were a pair of them, male and female, feeding near the loch, in a little pool which was covered with weeds of different kinds. Nothing could be more graceful than the movements of these two little birds as they swam about in search of insects, etc. Sometimes they ran lightly on the broad leaves of the water-lily, which served them for a raft and entirely kept them out of the water. Though not exactly web-footed, the phalarope swims with the greatest ease. The attachment of these two birds to each other seemed very great : whenever in their search for food they wandered so far apart as to be hidden by the intervening weeds, the male bird stopped feeding suddenly, and, looking round, uttered a low and musical call of inquiry, which was immediately answered by the female in a different note, but perfectly expressive of her answer, which one might suppose to be to the purport that she was at hand and quite safe : on hearing her the male immediately recommenced feeding, but at the same time making his way towards her ; she also flew to meet him : they then joined company for a moment or two, and after a few little notes of endearment, turned off again in different directions. This scene was repeated a dozen times while I was watching them. They seemed to have not the slightest fear of me, for frequently they

came within a yard of where I was sitting, and, after looking up, they continued catching the small water-insects, etc., on the weeds without minding my presence in the least.

After having apparently exhausted the food in one pool, on a signal from the male they suddenly both took wing, and flew away to a fresh feeding-place two or three hundred yards off, where we afterwards found them. Though we could not discover their nest, I have no doubt that they had eggs very near the spot where we saw them. Indeed, on dissecting the female we found two eggs in her, nearly full-sized, so that probably she had already deposited the other two, which would have made her number complete. I find no account of this bird breeding on the mainland of Scotland.

A great many widgeon breed about Loch Naver. I saw several drakes sitting on the points of grass running out into the lake, shining brightly in their beautiful and variegated summer dress. I also came upon an old duck-widgeon, who kept fluttering round my feet. On looking closely I found about seven young widgeon two or three days old, very like wild-ducks of the same age, but having, instead of the green colour of the young mallard, a kind of reddish brown tinge over the whole of their down. They soon scuttled away into the

lake, and we presently saw them swimming far out with the old bird. The number of young redshanks, peewits, etc., seemed very great. The terrier found them everywhere. The redshank has a merry and not unmusical note as he flies round and round with great rapidity on his nest being approached. I saw no greenshanks about Loch Naver, but plenty of them about the smaller and more lonely rushy lakes on the hills. The note of the greenshank is musical, and not quite so shrill as that of the redshank. Its flight, too, is different, making longer strokes with the wing; it darts with sudden jerks through the air, somewhat in the manner of a dragon-fly; sometimes hovering, and then darting downwards with great quickness. The nest of the greenshank is particularly difficult to find. I never found one myself, and have only once heard of its having been discovered. There is a peculiarity about the egg which, though difficult to describe, immediately strikes the observer, if he is at all learned in birds' eggs. The prevailing colour is olive-green. The shell seems of a fine texture, and the spots are small, but numerous.

A forester brought me four eggs, which he said were those of the jack snipe. Though I have every reason for thinking that he would not wilfully have deceived me, I suspect that he was mis-

taken in the bird, and that the action of the hen snipe when disturbed from her nest being unlike her usual flight, made him believe her to be the jack snipe instead of the common one. The eggs were certainly small for a snipe, but not smaller than I have sometimes seen them. I have never read any account of the jack snipe breeding in Scotland that I considered well authenticated. There is every probability that a few birds, unequal to the long flight of their migration, may remain in this country during the summer. But notwithstanding the eager search made for the nest by egg collectors, it has never yet been found in Scotland. I heard that the jack snipe had been seen breeding near Tongue, but the gamekeeper there says that this is not the case, and that probably the dunlin was mistaken for that bird.

