

instance of an offshoot successfully founding a colony (as it is almost certain that these birds came from Dallam Tower), but the circumstances for so doing were peculiarly favourable. We have noticed again and again that if a herony is visited during the breeding season the old birds, after circling round and round in the air a few times, will then make right away, flying for miles, and not returning until the intruders have left.

The third and smallest herony in Westmorland (if this last still exists) is at Rydal, again on a clump of trees either in or immediately upon the margin of the lake. Anent this, Mr. F. M. T. Jones, of Lesketh How, Ambleside, wrote Dr. Gough as follows: "I find the herons have not built upon Rydal for three or four years. When they did build there, they built in rather old Scotch and silver firs of late years, but I am told that, some twenty years ago, they built in other kinds of trees, oaks especially; and when at one time they were disturbed at building time by some people living at Nab Cottage, they left the island, and built in larch trees in a plantation in the side of Loughrigg, west of the lake. I will remember three or four nests a year within the last fifteen years, but I understand they were much more abundant about twenty years ago. The birds often come over to feed, and are seen about the rivers and the lake; but they have, I fear, altogether ceased to build there."

What is here set down as to the gradual diminution of the heron in Westmorland holds good with regard to both the neighbouring counties of Lancashire and Cumberland. In the former but two heronries exist, where once there was a good number. These are at Searshrick, near Stockport, and Ashton, near Lancaster. In Cumberland there are six heronries, viz., at Muncaster, Eamont river, The Riddings, Greystoke, Wythop Wood (overhanging Bassenthwaite Lake), and Edenhall. From these have been several offshoots, but in all of these the herons are less numerous than formerly. JOHN WATSON.

SENSE OF SMELL IN THE TIGER.

SR.—As "Dooker" remarks, from the fact of the tiger-shooting season being generally the hottest time of the year and between the monsoons, such a thing as wind is almost unknown. Occasionally an evening breeze springs up, and in night watching from machans this would have to be considered. It is the rare occurrence of wind during the shooting season that I think, more than anything else, has habituated shikaris to ignore it, and get to their tiger more by silence and stealth than by keeping clear of his wind. In the Deccan, where we used to shoot from rock and tree, and in a westerly gale, I frequently remarked that even when there was a puff of wind no notice was taken of it, and the stalk proceeded as before. In a beat, I am sure the wind is never taken materially into consideration, but that the beat is arranged simply and solely with a view to getting the tiger to make his exit at some favourable opening.

Tigers do not, as far as my experience goes, work by scent, nor do they travel so far in search of their food as the African lion. It must be borne in mind that African domestic cattle are very rarely the lion's *pièce de résistance*, being scarce and well guarded. The converse is the case with the tiger, who knows that he has only to lie in a jungle cattle path towards sunset, and take his pick from the lot as the herd is driven home to the village. Game tigers are, I am sure, the exception rather than the rule in India; hence may easily result a corresponding dulness in their power of smell. I do not think tigers hunt, or indeed find, by scent so much as by sight; but neither Dr. Jerdon nor that good sportsman Mr. Sanderson, makes any reference to the subject in his writings. CONN.

SR.—Your correspondent "Dooker," in *The Field* of Jan. 1, asks for information on the above subject. During my nine years' residence in India I took a great interest in sport and natural history of all kinds, and the subject referred to was one that I made particular note of, and am quite convinced that a tiger does possess the sense of smell, and that

river. When the larger animals are so rapidly dying out as they are all through South Africa, it behoves all good zoologists to try and define their past geographical distribution before it is too late.

It is interesting to hear from Mr. Bryden that the springbok yet exists in the colony in such large numbers as he describes (*vide The Field*, Jan. 8). I have often wondered that farmers who own such large tracts of country as they do at the Cape have never tried to re-introduce some of the larger and harder animals, such as elands, hartbeests, &c. There must be many men to whom the sight of such on their own land would be a source of the greatest interest, and though no doubt an Englishman is a very destructive creature, at the same time he can, when he chooses, be just as keen a preserver. Were it otherwise, the race of red deer in this country would have been extinct long before this.

Should Mr. Bryden care to see what I have written on the subject of the geographical distribution of the larger mammals in South Africa, he can do so by referring to the Proceedings of the Zoological Society for March, 1876, or May, 1877; or, should he care to possess a copy of these papers, I shall be most happy to send him one, if, through you, he would favour me with his address. J. E. BUCKLEY.

HEADS OF THE SUMATRAN RHINOCEROS.

SOME time since we received, by Mr. Brooke Low, of Sarawak, Borneo, three rhinoceros skulls, which had been brought down by some of the chiefs from the interior to Sarawak. On examination they proved to be specimens of the small Sumatran species (*R. Sumatrensis*), which was first recognised as distinct in 1793, when it was described in the Philosophical Transactions. It has also been exhibited in a living state for a short time in London, a female specimen having been purchased by the Zoological Society for £600 in August, 1872, but unfortunately it did not long survive, having died suddenly a few months ago. A second specimen was also imported in December, 1872, a female, which produced a young one before it was disembarked from the steamship. This weighed at birth about 50lb., and stood two feet high at the shoulder. It was most active, and took nourishment freely, but unfortunately died in a short time, and, having been preserved, was sent with its mother to America. The skulls forwarded by Mr. Brooke Low are those of an adult male and female and a half-grown young. They have been prepared by the natives with a preservative consisting chiefly of tannin. This has converted the skin into a species of leather, which would remain unchanged for centuries if kept dry. The tanning material has also stained the bones of a dark reddish brown, and some months soaking of the skull of the young animal has failed to remove the colour. The skulls were exhibited at the last meeting of the Zoological Society, and will be on view in *The Field* Office during the ensuing week. In size, the *R. Sumatrensis* is the smallest of the group, measuring only 3ft. 8in. at the shoulders, as compared with the large Indian species, *R. unicornis*, of which the male is 5ft. 4in., and the female 5ft. 2in.

THE SECRETARY BIRD.

SR.—I notice in your issue of Jan. 15 a letter from Mr. H. A. Bryden, stating that the secretary bird is extinct in Cape Colony. As in 1882 it was comparatively common on the tract of land between the Outeniqua mountains and the coast, I believe and hope that he is incorrect in his statement. Unless a war of extermination, of which there were no signs in 1882, has since commenced, I think the district I refer to is still equal to producing *Sagittarius serpentarius* if required. WRAITH.

SR.—In your issue of the 15th inst. appears a letter from Mr. H. A. Bryden, to the effect that the secretary bird has become extinct in the Cape Colony, on the authority of Mr. Ohlsson, a member of the Cape Parliament, and a statement by him at a meeting held for the protection

of others for many years, it is my belief that in most rivers eels constitute their principal food; frogs are also a very favourite morsel. Eels are well known to destroy a great quantity of trout spawn; so it may not be unreasonable to suppose that otters do more good than harm in a trout stream, could a balance be drawn. The existence of otters in the West Kennet, Berkshire (a well-known trout stream), four years ago was hardly known; and yet there they were in great numbers, for since then West Cumberland Otter Hounds have hunted the district, upwards of thirty have been killed. Previous to that time no complaints were made about fish being destroyed by otters; and some people went so far as to say that there were none in the district. We read in Pope, "The Kennet swift, for silver eels renowned." This line is scarcely true now, eels being few and far between, compared to what they were—entirely due, I believe, to the number of otters there were, and still are, on this stream. There is no fixed time for the otters breeding. I have found cubs in December, May, July, and September, all about the same age. Seldom having more than two cubs at a time, I do not think it necessary to shoot them, or trap them, as is done in some hunting districts. Fishermen should remember that hunting men are not just as keen about hunting as they are of fishing.—OLIVER.

I hasten to set right M. O. H. on one point in his well-meant remarks on my notice of the destruction of four otters in the Shannon. By "gunners" I did not mean "soldiers," as none of the men under the command of Capt. Campbell, M.O.H. of the King's Own Otter Hounds, had any part in the tragedy, which was enacted by civilians. As to "Mulcair's" remarks on the subject, he appears to know very little about otters. I have, as "Mulcair" observes, taken a life-long interest in the preservation of salmon, but that is no reason why I should not take an interest in the preservation of otters also. In a large river like the Shannon, the otter does very little damage amongst the salmon. In my experience of forty years, I have heard of only one summer fish having been destroyed by wild otters. In the winter season, after the fish have spawned, they will occasionally "nobble" a spent fish; but what of that? Each season in the Shannon and its tributaries hundreds of salmon are made away with by poachers, and I have never heard from "Mulcair" a word in denunciation of them. I can further affirm that, during twenty years' experience of tame otters, I have never known one of them to a kill a salmon, although I have worked them in parts of the river, where fish from 8lb. to 40lb. abounded. As regards the hunting of otters, if they are slaughtered in cold blood in the main river, how can we expect to find them in the tributaries, where they would afford such sport to those who delight in chasing them? A fox will sometimes carry off a pheasant or partridge, but is that any reason why he should be ignominiously shot? It is noters at this time of year as "Mulcair" seems to think, to find young otters by any means unusual. They are to be found all the year round. I got my first baby otter on Dec. 18. Others I obtained in January, February, March, April, May, June, and, in fact, in every other month of the year.—S. J. HURLEY (Killaloe).

ZOOLOGICAL SOCIETY OF LONDON.

ADDITIONS TO THE MENAGERIE, REGENT'S PARK, FROM JAN. 10 TO JAN. 16.

Date.	Name.	Country.	How obtained.	Where placed in the Gardens.
Jan. 10	1 Red-fronted Lemur (<i>Lemur rubrifrons</i>) ♀	Madagascar.	Presented by Mr Pawelzig	Monkey House
"	1 Vermet-Monkey (<i>Macaca thibetensis</i>) ♀	S. Africa	Ditto	Ditto
"	1 Patas Monkey (<i>Cercopithecus patas</i>) ♀	W. Africa	Presented by Mr G. Ellis	Ditto
15	1 Common Otter (<i>Lutra vulgaris</i>)	Lancashire	Purchased	Small Mammal House.

♂ Male. ♀ Female.