

sort of hybernation, and require to be stirred up preparatory to setting lines for them. In September they begin to be a trifle more lively; and, from accounts I have lately received from the Mary River, it seems they have all at once become very plentiful in the very water-holes where we had lines set for weeks before in August without getting a 'bite.' In fact they would not bite at all at that time, and the specimen I sent you was obtained in the Mary River, or rather in one of its upper branches. Now, however, they are caught almost daily. Their food consists of Mollusca (such as small specimens of *Cyclas*, *Anodon*, *Lymnæa*, and *Physa*), together with various water-weeds and grasses. It is highly probable that the natives' story of their coming out at night 'to graze' is quite correct, as I found in their intestines and stomachs *land grasses* which could only have been obtained by their coming at least partially out of the water. I am inclined to think that (like Eels) they may occasionally come out into the very shallow parts and edges of the water-holes, and even out on to the margins of the pools among the weeds and long grasses which hang over into the water.

"The stomach is curiously divided into compartments, each filled with food—grass, weeds, shells, &c. I am not sufficiently acquainted with the internal arrangements of animals to make any remarks upon this part of the subject; but I feel convinced that a close examination of the heart and lungs will prove that the *Ceratodus* is much more akin to the Batrachians than most of us are aware of.

"My brother John has gone up to our sugar-plantations on the Mary, and as the *Ceratodus* is obtainable within ten miles of our residence, I hope very soon to have living specimens down; it is his intention to keep them alive in a large tank, both *males and females*, and to watch their habits.

"Mr. S. B. Davis of Rockampton has been making great exertions to obtain me specimens from the Fitzroy, and has made several trips also to the Dawson; but unfortunately the distressing floods they have had there have prevented him obtaining any. The only fishes obtained were a few of the true Barramundi (*Osteoglossum leichardti*), which will be forwarded to me in due time. He informs me that the *Ceratodus* is plentiful in the water-holes, creeks, and lagoons in the western waters.

"I will forward you other specimens as soon as possible from various districts for comparison, and shall be glad to hear what your great ichthyologists think of them."

Mr. Sclater exhibited a horn of the male Indian Rhinoceros (*Rhinoceros unicornis*) living in the Society's Menagerie, which had been torn off by the animal on the 10th of August last—and made the following observations:—

"Our male and female Indian Rhinoceroses having been placed in the adjoining yards, in front of the new Elephant-house, on the 10th of August last the male made frequent attempts to raise the lower transverse bar of the strong iron railing that separates the two

enclosures, by placing his horn under it. After repeating these attempts several times, in spite of the interference of the keepers, his efforts were such that the horn became suddenly detached under the violent pressure to which it was subjected, and rolled off into the yard. The animal appeared to be much hurt, and roared lustily for a few minutes. There was a considerable loss of blood from the wound, which, however, healed in a few days, neat's-foot oil being applied to it to keep off the flies.

Fig. 1.



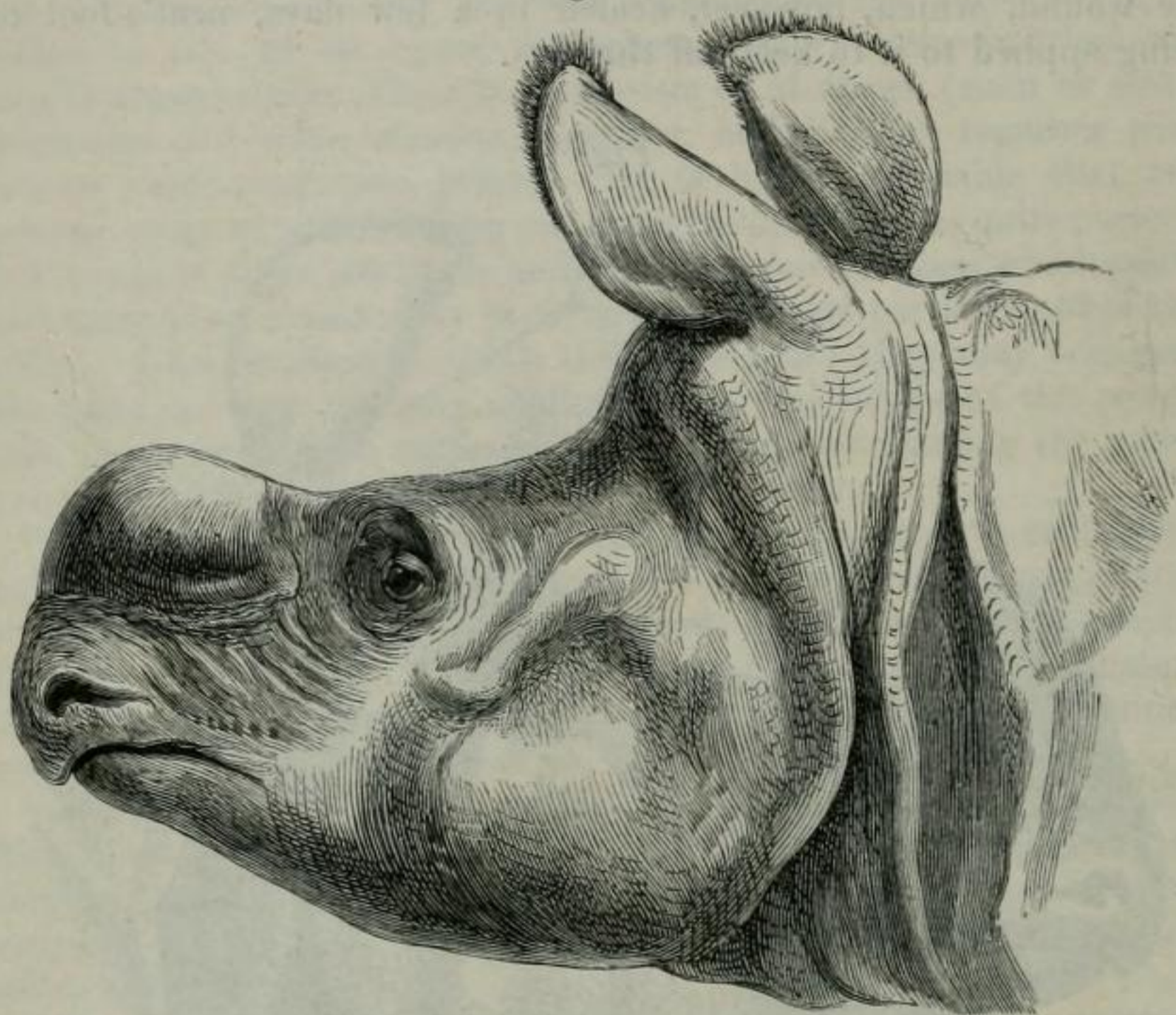
Head of male Rhinoceros before the horn was torn off (August 10th, 1870).

“The horn, as will be seen (fig. 1), measures about 12 inches in length along its anterior surface, which curves gradually backward; the widened base is $8\frac{1}{4}$ inches in long diameter, and $5\frac{1}{2}$ inches across. The lower surface presents a considerable cavity, about $1\frac{3}{4}$ inch in depth, upon examining which it is clearly seen that the whole horn has been cleanly torn away from the matrix.

“Very soon after the loss of the old horn, we observed indications that a new horn was forming. This has increased rapidly in size, and is now already perhaps $1\frac{1}{2}$ inch in height. It is thus certain that the Rhinoceros has the power of reproducing its horn, after the existing one has been broken off. I am well aware that this fact has already been noticed by different explorers and observers;

moreover Mr. Blyth has informed us (see 'Field,' Aug. 20, 1870, p. 173) that several years ago an accident similar to what has been here recorded occurred to an animal of the same species in the Zoological Gardens at Moscow, and that in this case likewise the

Fig. 2.



Head of male Rhinoceros, with new horn growing (January 3rd, 1871).

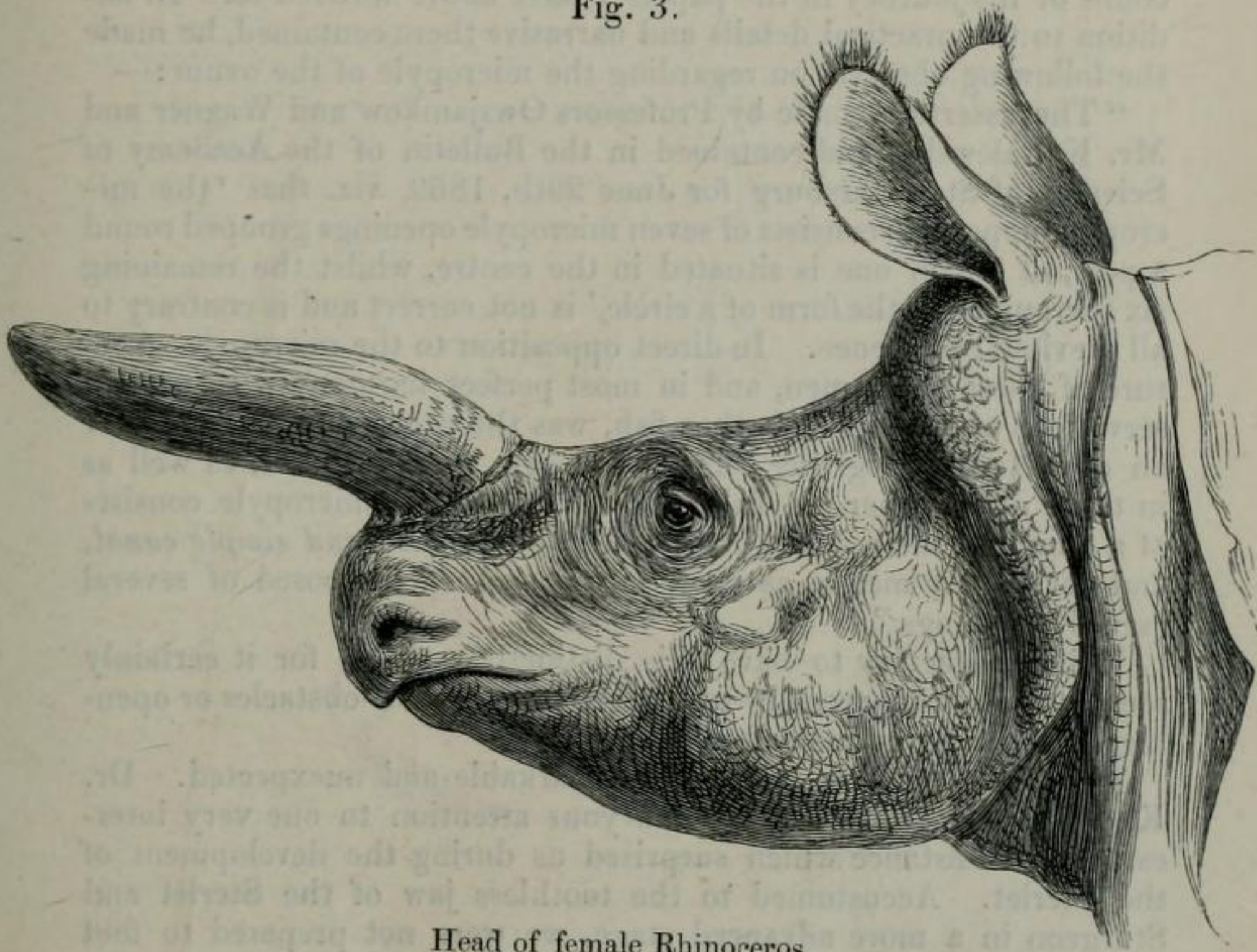
horn grew again. I have nevertheless thought that the present occurrence is well worthy of a place among the records of the Society. It is notorious that the reproduced horn of an animal is liable to be materially different in structure from the normal horn; and it is very possibly due to some such accident as above mentioned, that we have been favoured with the creation of certain new species of Rhinoceroses that have been based upon horns alone*.

“In further illustration of this subject, I beg leave to exhibit a drawing of the present state of the horn of our old female Rhinoceros, which has now been in the Gardens since 1850 (see fig. 3). Instead of rising nearly perpendicularly from the nose, as in the ordinary form of this species, the horn in this animal projects forward beyond the end of the nostrils, and has now attained a length of 18 inches or thereabouts. This may perhaps be due to the practice indulged in by this animal for several years of grinding

* *Rhinoceros crossii*, Gray, P. Z. S. 1854, p. 250, based upon an anterior horn of *R. sumatranus* (cf. Blyth, P. Z. S. 1852, p. 1), and *R. oswellii*, Gray, P. Z. S. 1853, p. 46, which is probably the same as *R. simus*.

down her horn against the bars of her cage; for it is only within the last few years that this appendage has grown into its present shape. But it is obvious that nearly similar circumstances might occur in

Fig. 3.



Head of female Rhinoceros.

a state of nature, and that the horn thus developed would suffice for the foundation of a new species equally well with those already referred to.”

The following papers were read:—

1. Note regarding the Young Stage of the Sterlet (*Acipenser ruthenus*). By ANDREW MURRAY, F.L.S.

[Received December 16, 1870.]

During the last summer I made an attempt to introduce the Sterlet from Russia into Britain by importing artificially impregnated ova, which was so far successful that I turned loose, in the Duke of Sutherland's river Fleet, from 150 to 200 lively young Sterlets which had come out on the voyage. I gave an account of my proceedings in two papers which appeared lately in 'The Field,' and to these I would refer any one who desires information regarding the practical part of the business. In the course of the experiment, however, two scientific observations were made which seem worthy