

veins and tendons, the proud action of the uplifted fore-leg, the keen, eager glance in the eyes, all testify to a congruity of action and feeling that combine in creating a wonderful and harmonious whole. There is a legend in Venice that every time the horses have set out on a journey it marks the overthrow or collapse of some state or empire. This legend has proved truer than most of such popular traditions, for with but slight modifications it has come about on no fewer than five different occasions. The first of these was in 130, when Constantine the Great carried off the horses from the Arch of Nero in Rome to adorn his new capital at Constantinople, and the world dominion of Rome passed to that of Byzantium, the East supplanting the Empire of the West. Again, when in 1204 the horses were taken from

Constantinople to Venice, the occasion was that of the fall of the Greek Empire. In 1797 the horses went to Paris and the fall of the Venetian Republic came about. The Empire of Napoleon the Great fell in 1815, and the horses went off to Venice. In 1917 they were again on the move from Venice to Rome, and but a year after the Empire of the Hapsburgs collapsed.

Now they are once more in Venice, and must soon be set up again in their old familiar place, but everyone who has seen them at close quarters will regret that they cannot stand in some spot where their wonderful points as modelling and anatomy could be better seen, and where their exquisite beauty could be more fully realised and appreciated.

NATURE NOTES

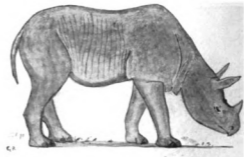
THE SONG OF THE SWAN AND THE HAUNTED LOCH

ABOUT twenty years ago I first heard the song of the swan, but the description of it was met with so much contempt by the sporting journals to which I penned my discovery, as a revival of the mythical song of the dying swan, that my letters were not published, and I decided to keep the knowledge to myself until some other observer noticed the same thing. This did not occur until twelve years afterwards, when a well known ornithologist, in an article on bird-life in Iceland, described the beautiful little song of the male Whooper swan as "The male has a little song of about seven notes, which he utters in rather a low tone, and is by no means unpleasant." Following this, I published my observations made twelve years before ("British Birds," Vol. VI, page 286). The song I heard was performed by the small Bewick's swan, and consists of the full octave, ascending and descending the scale. Although several times hidden right in the middle of the herd, I cannot say whether the song is only confined to the male, for it is next to impossible to distinguish the sexes. The song of the dying swan is supposed to be a myth—a fallacy of the ancients, and only heard of in poetry and the classics. But the song of the living swan is a reality, as I have heard it myself, and very weird it is when first heard. Possibly the song of the syrens luring mariners to their doom was the song of the swan? Who can tell? Many a night have I spent on the shores of a haunted loch on a little island in the Hebrides, listening to this weird but beautiful song. The noises on a lake by night are always curious, and a name cannot be put to the authors of many of them, but this song was the most curious I ever heard. Not an islander would go near that gloomy, mysterious, haunted loch after dark on any account whatever. The song is hard to describe, but most resembles the voices of many women humming a mournful tune softly to themselves, or of solemn funeral music falling upon the air like a dirge of unearthly voices singing a *De Profundis*. The song varies, and I have heard proceeding from this loch in the stillness of the night, and under the pale moonlight, the most wonderful dirges and laments—dirges and laments more beautiful and sorrowful than any I have heard played upon the pipes. The effect on one's mind is one of awe, as the humming which ascends and descends the scale in mournful cadences seems quite human, and makes one think that there is some truth after all in the supposition that after death our spirits pass into the bodies of birds and animals. Suddenly, as I listen, the beautiful song ceases, and all is silent as the grave, save for the mournful sighing and sighing of the night wind among the reeds. The head of every swan is up and looking in one direction, and all at once the eerie silence is broken as the whole herd gives tongue in a loud chorus of short guttural barks. Across on the far bank a shadowy form is moving along the swampy margin of the loch, which, as it comes nearer, appears to be a dog of some sort, but all at once it vanishes completely, swallowed up in the night. Then a shiny head is pushed up out of the water in front of me, without making a ripple upon its glassy surface, disappearing again without splash or ripple. A widgeon duck on my left suddenly disappears under the water with a slight splash, pulled down by the otter, for such was the animal whose appearance had caused so much alarm among the swans. The singing is soon resumed, interposed with the most heart-rending sighs and sobs, like those of departed spirits in anguish and distress, who cannot rest, but are doomed to wander the earth through for all time, in purgatory for the sins and shortcomings committed in their human shape. No wonder that the islanders, born and bred in superstition as they all are, shun the loch after dark as haunted! I only once heard the song in the daytime; it was the afternoon before the terrific storm which swept over the whole of the western islands in the February of that year, the most terrible within living memory. It raged for three days and three nights, during which time it was quite impossible to venture out of doors without being blown into the sea, and after

it was over there were two islands instead of one, as the sea broke right across. At night the lightning was so vivid that, during the flashes, the distant mountains on the mainland were seen as at mid-day. At times the flashes followed one another with such rapidity that the whole of the neighbouring islands appeared as set in a sea of raging fire for fully a minute at a time, the breaking waves appearing red like great tongues of flame, the whole making one of the grandest and most awful scenes I have ever witnessed. Most of these swans, of whose song I have been writing, are of the small Bewick's species, although there are some Whoopers also, as well as a few Mutes. On this haunted loch I have counted sixty-eight of these small swans at once, but on another very much larger loch on the same island I have seen over 200 at one time, to say nothing of hundreds and hundreds of duck, mallard, widgeon, teal and gadwall, and, in lesser numbers, shoveller, tufted duck and female goldeneye, the waters and shores being literally black with them. To them, every now and then, the majestic form of yet another swan, with plumage white as driven snow, would come sailing gracefully over the glassy surface of the loch, and circling, join his brethren below, breaking its mirror-like surface into a thousand ripples glittering in the sunlight. It seems almost an act of sacrilege even to point a gun at these regal birds, within whose white-clad bodies, who knows what spirits may dwell. H. W. ROBINSON.

THE BLACK RHINOCEROS.

The late Joseph Wolf, the famous animal painter, was once asked to figure the African white rhinoceros, and no model being available, it was suggested that he should depict it as resembling the black species in every particular, save for the square lip characteristic of the former animal. Being a sound naturalist and a conscientious worker he refused, saying that surely there were other important differences. In later days his refusal has been amply justified, for the two African rhinoceroses hardly



A BLACK RHINOCEROS CALF.

differ more from their Asiatic congeners than they do from each other.

The black rhinoceros is slightly smaller than the white species and lacks the hump which surmounts the neck of the other. It is further distinguished by its prehensile lip, the edge of which is prolonged into a flexible finger-like process. Although the nature of this lip is well known, it seems to the writer that its full interest and significance have never been recognised. The finger-like process is flesh coloured underneath and quite stout, being about as thick as a lead pencil; it is so supple that it can readily be curved round an object, and is, in fact, a tiny, incipient trunk. One recognises in the "finger" a central

support to which the labial muscles on each side are attached, thus recalling the tendinous *raphe*, which carries all along the middle line of the proboscis the far more numerous trunk muscles of the elephant. In view of the common ancestry of rhinoceroses and tapirs one might conclude that the upper lip of the black rhinoceros was analogous to the trunk of tapirs; the trunk in the rhinoceros was analogous to the trunk of tapirs; the trunk in the latter animals, however, does not end in a projection but in a pit, caused by the prominence of the nostril on each side. The pointed lip of the black rhinoceros should be regarded as a special isolated character, like the elongated, extraordinary nose of the proboscis monkey.

Some have stated that the colour of the black rhinoceros is a slaty grey—a dictum with which the writer cannot agree. Others more reasonably say that there is but little difference in the hues of the black and white species. Certainly the "black" individuals seen in Europe would almost qualify for the brownish white tint which Cornwallis Harris assigned to their paler relations. The young of the black form are lighter than the adults, thus a calf of this species which the writer saw in the Zoo on May 30th, 1907, was quite white. The young are also remarkable in exhibiting, quite as distinctly as their seniors, the extraordinary rib-like dermatomes which decorate their hides. These structures are separated by deep fissures; their outlines are irregular, and they occur not only on the sides of the chest, but also in the loin, where ribs are not found. The black rhinoceros is unique in the animal kingdom in possessing these dermatomes, and these structures are far more characteristic than the prehensile lip, which is shared in a lesser degree by the Sumatran rhinoceros.

Although quite thick, the hide of these animals is supple enough during life; they are active on occasion, the wrists and ankles being quite delicately formed and the limbs relatively slender, unlike the pillar-like legs of elephants. The skin of the neck and the head between the ears is finely and deeply scored in a crossed pattern, recalling the imprint left on cement by sacking; in the light coloured young the whole animal looks as if it had been modelled in plaster. The underparts in youth are pinkish, in adult life grey.

In 1868, Casanova, the first traveller for the wild beast firm of Hagenbeck, returned to Europe with a black rhinoceros which he had obtained near Cassala; it was supposed to be about two years old. It stood 3ft. 6ins. at the shoulder, and measured about 6ft. in total length. It was purchased for £1,000 by the Zoological Society of London, being the first of its kind in Europe since the days of the Romans. Theodore fed well and soon attained a considerable size, living for nearly twenty-two years in the collection. For a year before its death the animal began to fail in appetite, and during the last two months was markedly thinner; it died on Sunday, April 12th, 1892. The *post-mortem* examination revealed heart disease as the actual cause of death, but the stomach also contained an ulcerated cancerous tumour.

The career of this individual exposed the fallacy of the then classification of rhinoceroses. The older naturalists, such as Sir Andrew Smith, divided the black form into several "species" according to the relative length of the horns; thus animals with these weapons equal or nearly so were known as the "ketloa," while if the anterior horn were some two-thirds longer than its fellow its owner was a "borélé." During his lifetime Theodore managed to belong to two, if not three, separate species, according to this pronouncement. On arrival in London his horns were exactly intermediate between ketloa and borélé; in 1886 the posterior horn had outstripped the anterior one, so that he became a kind of reversed ketloa; on his death in 1892 the anterior horn was leading. Thus he ended a good ketloa, with a prospect of becoming a borélé!

GRAHAM RENSHAW.

A MARINE SPIDER.

Many years ago (1886 to 1893) I was stationed in Singapore and spent many happy hours hunting for and studying the habits of birds, beasts, reptiles, insects, etc. The shallow seas surrounding the island abound in coral reefs, some being connected with the shore at low tide and some being completely isolated. One of the latter was a happy hunting ground of mine. In a small Malay canoe, with a minimum of clothing—in the tropics every sensible person discards as much as possible of this encumbrance—I used to paddle out to my reef as the falling tide left it bare and for hours became absorbed in all the wonders of marine life to be found on it.

One day I was surprised at seeing a spider, about ½ in. long, walking over the surface of one of the masses of dead coral with which the reef was strewn. At first I thought that I must have brought it with me on my clothes from the land, but after some search I discovered other specimens and came to the conclusion that somehow or other they contrived to live on this reef, which

was entirely covered by the sea to a depth of several feet at each high tide, being uncovered for a few hours only each day. It was some time before I discovered how they existed during the time the reef was submerged. One day I was busy with a hammer and chisel cutting out the shells of a species of rock-boring mollusc from a mass of coral when, in the cylindrical hole, about ½ in. in diameter, which the mollusc had excavated to a distance of some 6 ins. or 8 ins. into the coral, I found a nest containing a female spider and young. The hole was closed by a curtain of web spun across it.

This, then, is the expedient to which the spiders resort. They make use of the natural diving bells formed by holes in the rock which open downwards and in which, as the tide rises, a certain amount of air becomes imprisoned. In these they remain perfectly secure till the tide again falls and they can sally forth to hunt for their prey—for hunters they surely must be, as it does not seem possible that in such a habitat they can spread a net for the unwary.

Many questions arise regarding their life and habits which I never was able to answer. Do they always inhabit the same burrow, or do they roam about, retiring to any convenient and suitable hole as the tide rises? If they have a fixed abode, how far do they venture from it and how do they know when to get indoors before the rising tide catches them? What is their food? Do they eat small marine animals, such as shrimps, or are their submarine homes shared by insects on which they live? How do they catch their prey?

To solve these and other riddles of the life history of these spiders would furnish occupation for days to anyone interested in such subjects. The particular reef on which I found these spiders is situated at the southern end of the passage between the islands of Blackang Mati and Pulau Brani, which lie on the south side of and close to Singapore—partially enclosing the harbour.

H. J. KELSALL.

CANNIBAL GULLS.

We so often hear that there are too many of a certain kind of bird and they must be destroyed, but no thought is given to upsetting "the balance of Nature"; and then great complaints are made because insects, vermin, etc., increase in vast quantities, which the destroyed birds would have kept within bounds. I thought some of your readers might like to know that the greater



GREATER BLACK-BACK GULLS.

black-back gulls evidently help to keep their own numbers down. I spent twenty-four hours on an island inhabited by these birds. In the evening the young birds came out from among the rocks and roamed about. During that time I saw one of the old birds busily engaged in eating something; as it was nearly hidden behind a large rock I could not see at first what it was, but soon saw it was a young gull, of which nothing was left. Shortly afterwards I saw two other gulls having a tremendous fight in the water, and finally one flew away with something which it proceeded to eat; on looking through the glasses I saw it was also a young gull. During the early hours of the morning while I was in my hiding tent I saw another young one (one big enough to be getting its quill feathers) caught by the back by an old bird, which I frightened away, and the little one crept into a crevice of the rock where I thought it would be safe; but on looking out again soon afterwards, I saw it had been caught again, and the poor little beast was having bits picked out of it. I went to its rescue, but found it was badly hurt; so I killed it to put it out of its misery. I also saw several fights between the birds among the rocks, which were probably owing to the parents protecting their young ones from the cannibals.

ELEANOR SHIFFNEE.