

4. GASTEROMYCETES. {  
*Sporidia fixa.* {  
 a. Phalloidei. Analogi cum Hymenomycetibus.  
 b. Tuberacei. Analogi cum Discomycetibus.  
 c. Nidularacei. Analogi cum Pyrenomycetibus.  
*Sporidia pulveracea* {  
*laxa.* {  
 d. Lycoperdinei.  
 e. Trichodermacei. Hyphomycetes perfectius evoluti.  
 f. Myxogastres. Hypodermiis eximie analogi v. c. Perichæna strobilina = Peridermium, Lk.
5. HYPHOMYCETES. { (Obs. nunc limites non e substantia floccosa, sed in morphosi pono.)  
 a. Isariei sive Hymenomycetes elementares.  
 b. Stilbini sive Discomycetes elementares.  
 c. Mucorini sive Pyrenomycetes.  
 d. Mucedines sive Gasteromycetes elementares cum Trichodermaceis confluentes.  
 e. Dematiei.  
 f. Sporodermei sive Coniomycetes in floccos concatenati.
6. CONIOMYCETES. {  
 a. Sclerotiacei sive Hymenomycetes elementares.  
 b. Tuberculari sive Discomycetes elementares.  
 c. Stilbospori sive Pyrenomycetes elementares.  
 d. Illospori sive Gasteromycetes elementares.  
 e. Sepedoni sive Hyphomycetes elementares.  
 f. Hypodermi.

## PROCEEDINGS OF LEARNED SOCIETIES.

## ZOOLOGICAL SOCIETY.

February 12, 1839.—Thomas Bell, Esq., V.P., in the Chair.

A paper from Mr. Schomburgk, entitled "Remarks on the Greater Ant-bear (*Myrmecophaga jubata*)," was read. This paper commences with some general observations on the *Edentata* and *Monotremata*: the author then proceeds to give a detailed description of the animal under consideration. The following is an abstract of the remaining portion of the paper, or that which relates to the habits of the animal.

Mr. Schomburgk observes, that at a distance the Ant-bear appears to be a much taller animal than it really is, owing to the elongated and nearly erect hair of the mane, and also the erect manner in which it carries its large bushy tail. When walking, the outer portion of the fore foot is applied to the ground, and the long claws are then doubled inwards. It runs with a peculiar trot, and is not, as has been represented, slow in its movements and easily overtaken; for when chased it will keep a horse in canter, and does not tire readily.



White Ants or Termites constitute its chief food. When the Ant-bear meets with one of the tumuli constructed by the White Ants, it immediately pulls the fabric down by means of its large strong claws, and when the Ants are thus exposed its long slender tongue is thrust out to collect them. The movements of the tongue, alternately protruded and retracted, are so rapid, says Dr. Schomburgk, that it is no longer surprising how so large an animal can satiate its appetite with such minute insects. With the Termites he swallows a considerable quantity of the material of which the Ants' nest is constructed. Of this fact Mr. Schomburgk assured himself by dissection, and he is of opinion that the substance of the nest serves as a corrector.

"It has been generally thought," says Mr. Schomburgk, "that the Ant-bear lives exclusively on Ants; this, however, is not the case. In one which I dissected a year ago, a species of *Julus* was found; and an adult one now in my possession swallows with avidity fresh meat hashed up for it.

"The Ant-bear makes neither nest nor burrow, its ample tail serving it as sole protection against the inclemency of the weather. One of its favourite positions when at rest, is to tuck up its feet under its belly, and to unite the two extremities almost close together; in which position the tail covers the whole animal: at other times it covers itself up like a dog when asleep, and the tail covers only the snout and part of the body. The female Ant-bear possesses two pectoral teats, and produces only one young at a time; and as soon as this has received sufficient strength the mother carries it with her on her back, where it keeps itself firmly attached. The young animal remains with its mother for the space of a year, and as this is the period when she brings forth again, it is then obliged to shift for itself.

"If the mother be attacked, she defends herself valiantly: raising herself upon her haunches, she strikes with her sharp claws at the enemy; this is chiefly done with the right foot, while the left rests on the ground; but she quickly changes their respective positions when the attack is carried to the other side: the young one remains all the while clinging to her. If the danger increase, she throws herself upon her back, and strikes with both claws at her enemy.

"I have been assured by a highly-credible person, that the Jaguar finds it difficult to conquer the Ant-bear, and the fight which ensues was described to me as characteristic. It happens frequently that both combatants remain dead upon the spot, or that one does not survive the other many hours. The force which the Ant-bear possesses in its fore feet is astonishing, and I have no doubt that it



is well able to rip open the belly of its assailant; nevertheless, I should scarcely have supposed that the Ant-bear proved formidable to the fiercest of American animals.

“A young one, estimated about four weeks old, was presented to me by Dom Pedro Ayres. While riding on horseback over the savannahs, he discovered the parent with the young, and immediately gave chase. After she had kept the horse in full canter for half an hour, she found herself so closely pressed that she put herself in defence: my friend was ready with the lasso, and having thrown it dexterously over her, she was secured. To the last moment the young one had clung to the mother.

“The young one measured over the forehead along the back, from the tip of the nose to the insertion of the tail, twenty-two and a half inches; the tail was twelve and a half inches, and it stood nine and three quarter inches high. In lieu of the yellowish white of the legs, and the bands of the same colour, which give such a remarkable appearance to the adult, there were in the young animal gray hairs, tinged with white: in all other respects it resembled its mother in colouring.

“The young Ant-bear was quite wild at first, and sought for some dark corner in the room in which it was confined, in order to hide itself. When we approached it, it put itself immediately in defence like the adult ones, and struck out with its right paw, uttering at the same time a growl like that of an incensed puppy. After a few days, however, it became accustomed to its situation, and an Indian woman took upon her to feed it with milk and Cassada, and sometimes with White Ants. It soon showed great attachment to her, and followed her like a dog.

“It appeared to be of a very cold nature; not only the extremities, but the whole body felt cold to the touch, although we kept it wrapped up in a blanket. It preferred, however, to be nestled, and to be taken up, and on putting it down it uttered a whining but not unpleasant sound; when it did not succeed in attracting attention, and was not taken up again, the whining sound was raised to a harsh and grating noise. In following a person, it directed its course more by the smell than by sight, and carried its snout close to the ground. If it found itself at fault, it wheeled round at right angles upon the hind legs, and snuffed the air in all directions, until it found the right scent again. Of the dimness of its sight we had various proofs; it hurt itself frequently against objects that stood in its way, not observing them until it came in contact with them. Its power of smelling was exquisite, and it could



discover its nurse, or any person to whom it had taken a liking, at a considerable distance. Upon these occasions it would immediately commence the whining sound so peculiar to this animal. It was an expert climber; it happened that I was one of its favourites, and whilst writing on my table it used to come softly behind me, and as soon as it was sure it had found me out, it climbed up my legs with great dexterity. It showed its attachment by licking, and was very gentle and even sportive; we all prized it highly. It slept a great deal. We had it for nearly two months, and as it began to feed itself we had great hopes of rearing it; unfortunately we were unable to procure milk, and whether in consequence of the change of food, or some other cause, it gradually declined. I found it sometimes as cold as ice, and stiff, and although I recovered it repeatedly, it died one day during my absence.

“Its place had been meanwhile supplied by an adult specimen, likewise a female. I shall never forget the interesting sight which this individual presented. Some of the Indians belonging to my party, whom I had despatched in quest of game, met it on the savannahs, and wisely attempted to drive it towards San Joaquin without wounding it. My attention was first attracted by an immense hue and cry from the persons about the fort, and upon stepping out the first object which struck me was the Ant-bear, running in a kind of dog gallop towards the houses, and flanked on both sides by the red-skinned Indians, who were furnished with bows and arrows, which they were ready to discharge, should the animal break through their lines. Having arrived at the walls of the fort, it retreated into one of the corners which a bastion formed, and attempted to climb up by thrusting its nails into some of the larger interstices between the freestone of which the walls are built; it did not, however, succeed, and we managed to throw a lasso over it. The animal defended itself valiantly, and as the surrounding persons appeared to be afraid of it, it ran a fair chance of slipping the noose; some of the men more courageous than the rest threw it, however, on the ground, and another noose being fixed to one of its legs, it was secured, and safely lodged in the yard attached to our quarters. In its endeavours to get rid of the rope, which passed round the rump, it chafed itself considerably, and we found it necessary to make a roomy pen, to which it was conveyed. It began to feed on the third day: we gave it Ants and farina; the latter, a preparation of Cassada root, it never refused. The Ants’ nests in the neighbourhood of the fort were soon exhausted, and more in way of experiment than out of persuasion that the animal



would eat it, some small pieces of fresh beef were placed before it; to our greatest astonishment it ate the meat with avidity, and has since been chiefly fed on fresh beef and fish.

“By kind treatment it soon became domesticated, and fed out of our hands. When not asleep, (in which state it used the same position as already related,) it rested entirely on its haunches, and stretching its long snout through the palings of its pen, it surveyed the surrounding objects, and snuffed the air.

“It even raised itself frequently, and without difficulty, to nearly an erect posture, and remained thus for some minutes; sometimes it sat with its fore feet crossed. In feeding, it kneeled as sheep and goats do. It attempted frequently to take up objects with its paws; in this manœuvre its long claws assisted wonderfully. In rising from its resting posture it used first to get upon its knees.

“When some meat was thrown before it, it expanded the lateral apertures of the nostrils, and seemed, by moving its flexible upper lip, as if it intended to seek out the most delicate morsels.

“I have already remarked how fond the young one was of climbing, and have no doubt that, if circumstances should require it, they climb trees in their wild state with the same agility.

“It secretes a liquid substance, transparent like water, which drops down almost constantly out of its nostrils and mouth; this is the more remarkable, as it used very little water. The Llama, without using much water, possesses likewise a superabundant quantity of saliva. I recollect, before the pen was finished, when lying in the sun, it perspired so profusely that its hair could not have been more wet had the animal been in the water. It is remarkable that the four individuals, and the young one which we secured at Fort San Joaquin, were all females; in no instance have we observed a male. What, then, is the natural question, becomes of the males? I can give no other answer than that the males are unproportioned to the number of females, and are, no doubt, much more shy. Those which we secured were caught during day; it issues, perhaps, from the dense forests only by night. A similar instance offers itself in the genus *Auchenia*, of which the males do not quit their pastures in quest of the females, and herds exclusively of females and males are met with; it is only during the rutting season that they mix, when the males combat for the females.

“If it could be substantiated that the number of males is considerably smaller than that of the females, in that circumstance would rest an additional ground for supposing that the extinction of its species, like those of the *Edentata* in general, is determined upon.



“The flesh of the Ant-bear is eaten by many of the native tribes, and also by the negroes, who consider its skin a great delicacy.”

February 26, 1839.—The Rev. F. W. Hope in the chair.

A communication from the Bishop of Down and Connor was read.

In this communication (which was forwarded to the Society through W. Thomson, Esq., Vice-President of the Belfast Natural History Society) his Lordship gives an interesting account of a Philantomba Antelope (*Antilope Philantomba*, Ogilby) which his Lordship had had in his possession for a considerable time. The animal was brought from Sierra Leone by Frederick Wood Mant, Esq., who has lately presented it to the Society. It is said to be a native of a part of the country one or two hundred miles further inland. He is considered to be very rare even in that part of the world, so that little could be learned about him from the inhabitants, by whom, however, he appears to be known by the name of *Phillantombo* or *Phillytombo*.

“He was landed in England in May 1837, and was thence brought to Down and Connor House, Belfast, Ireland, where he has lived till this present November 1838. The chief change noticed in him has been the loss of his teeth, which took place about Midsummer 1837, and again in 1838, somewhat later in the season; but neither time did he seem to suffer any inconvenience, except for about a fortnight, when he appeared to require softer food than beans and biscuit. He also lost the rough sheath which covered his horns, by rubbing them against trees and posts, of which exercise he is very fond; as he is also of rubbing his cheeks against anything that will assist in removing the glutinous substance which exudes from the orifices under his eyes: for this purpose he is pleased with having his face rubbed by the hand, and he also seems to be gratified by a similar application between his horns. It should be added, that the points of his horns are extremely sharp, as has been experienced by those who have been standing near him when he has been in a playful mood, or who have had occasion to catch him in order to remove him to his night quarters; for although extremely gentle, and free from vice, he is at times too frolicsome to submit willingly to confinement, and is impatient of being taken up in the arms, when he utters a cry like a petted child. It has been remarked, in the case of any wound being inflicted by his horns, that it has never been followed by inflammation, and has soon healed.

“His food has been various; slices of raw potatoes at first, when he came, was his favourite food; but since he has been tried with



wheat, and *rick* beans, and with green branches of any tree, or withered leaves of any kind, he has not eaten of the potatoes at all. Every fruit he readily devours as well as flowers, such as china roses and tulips, or any other gay ornament of the parterre. He has been sometimes observed to dibble in the earth with his sharp hoof, and eat voraciously of the mould; and once, having got access to a plum tree, he swallowed so much of the fruit, stones and all, as to occasion considerable alarm for his safety. He is very fond of hard biscuit, and drinks often of fresh water."

An account of the habits of the Chimpanzee was communicated by Lieut. Henry K. Sayers. "Bamboo, the Chimpanzee, now in the Zoological Society's Gardens, Regent's Park, and the subject of this sketch," says Lieut. Sayers, "was purchased, about eight months since, from a Mandingo, at Sierra Leone, who related that he had captured him in the Bullom country, having first shot the mother, on which occasions the young ones never fail to remain by their wounded parents. On becoming mine, he was delivered over to a black boy, my servant, and in a few days became so attached to him as to be exceedingly troublesome, screaming and throwing himself into the most violent passion if he attempted to leave him for a moment. He evinced also a most strange affection for clothes, never omitting an opportunity of possessing himself of the first garment he came across, whenever he had the means of entering my apartment, which he carried immediately to the Piazza, where invariably he seated himself on it with a self-satisfied grunt, nor would he resign it without a hard fight, and, on being worsted, exhibited every symptom of the greatest anger. Observing this strange fancy I procured him a piece of cotton cloth, which, much to the amusement of all who saw him, he was never without, carrying it with him wherever he went, nor could any temptation induce him to resign it even for a moment. Totally unacquainted with their mode of living in the wild state, I adopted the following method of feeding him, which has appeared to succeed admirably. — In the morning, at eight o'clock, he received a piece of bread about the size of a halfpenny loaf, steeped in water or milk and water; about two, a couple of bananas or plantains; and before he retired for the night, a banana, orange, or slice of pine apple. The banana appeared to be his favourite fruit; for it he would forsake all other viands, and if not gratified, would exhibit the utmost petulance. On one occasion I deemed it necessary to refuse him one, considering that he had already eaten a sufficiency, upon which he threw himself into the most violent passion, and uttering a piercing cry, knocked his head with



such violence against the wall as to throw him on his back, then ascending a chest which was near, wildly threw his arms into the air and precipitated himself from it. These actions so alarmed me for his safety that I gave up the contest, and on doing so he evinced the greatest satisfaction at his victory, uttering, for several minutes, the most expressive grunts and cries; in short, he exhibited on all occasions where his will was opposed, the impatient temper of a spoilt child; but even in the height of passion I never observed any disposition to bite or otherwise ill treat his keeper or myself.

“Although he would never object to be caressed or nursed by even a stranger, yet I never saw him evince the slightest disposition to make the acquaintance of any other animal. At the time he came into my possession I had two Patas Monkeys, and thinking they might become acquainted, I placed Mr. Bamboo in the same apartment, where he resided for five months, yet I never saw the least desire on his part to become even friendly; on the contrary, he showed evident anger and dislike at their approach. This strange attachment to the human race and manifest dislike to all others, I have always considered one of the most extraordinary features of this genus. His cunning was also remarkable. On all occasions where he thought he was unobserved, he would not fail to steal everything within his reach, for no other apparent purpose than to gratify a propensity for thieving: did he, however, even think you were looking at him, he would wait his opportunity with the greatest patience before he commenced depredations. In his habits, unlike the monkey tribe, he was exceedingly cleanly, never soiling his bed or any place near it; and even on board ship (during the warm weather) he never failed to seek the deck, unassisted, whenever the calls of nature required it. On being left by himself in his piazza he would invariably seat himself on the window-sill, which was the highest point he could attain, and commanded a view of the barrack yard as well as the interior of my bed-room; but at sun-set he would descend, enter a washing-tub, which he had of his own accord chosen as a sleeping-place, and remain there all night: as soon, however, as the sun rose, he would never fail to occupy his favourite position on the window-ledge. From this I should say, that trees are ascended by the Chimpanzees merely for observation or food, and that they live principally on the ground. Bamboo, at the time of purchase, appeared to be about fourteen months old, and from what I could learn from the natives, they do not reach their full growth till between nine and ten years of age, which, if true, brings them extremely near the human species, as the boy or girl of West Africa,



at thirteen or fourteen years old, is quite as much a man or woman as those of nineteen or twenty in our more northern clime. Their height, when full-grown, is said to be between four and five feet: indeed I was credibly informed, that a male Chimpanzee, which had been shot in the neighbourhood and brought into Free Town, measured four feet five inches in length, and was so heavy as to form a very fair load for two men, who carried him on a pole between them. The natives say that in their wild state their strength is enormous, and that they have seen them snap boughs off the trees with the greatest apparent ease, which the united strength of two men could scarcely bend. The Chimpanzee is, without doubt, to be found in all the countries from the banks of the Gambia in the north, to the kingdom of Congo in the south, as the natives of all the intermediate parts seem to be perfectly acquainted with them. From my own experience I can state that the low shores of the Bullom country, situated on the northern shores of the river Sierra Leone, are infested by them in numbers quite equal to the commonest species of monkey. I consider these animals to be gregarious, for when visiting the rice farms of the Chief Dalla Mohammadoo, on the Bullom shore, their cries plainly indicated the vicinity of a *troop*, as the noise heard could not have been produced by less than eight or ten of them. The *natives* also affirmed, that they always travel in strong bodies, armed with sticks, which they use with much dexterity. They are exceedingly watchful, and the first one who discovers the approach of a stranger utters a protracted cry, much resembling that of a human being in the greatest distress. The difficulty of procuring live specimens of this genus arises principally, I should say, from the superstitions of the natives concerning them, who believe they possess the power of 'witching.'

"There are authors who have, I believe, affirmed that some of the natives on the western coast term these animals in their language 'Pongos;' but I observed that all the natives in the neighbourhood of Sierra Leone, when speaking of this animal, invariably called him 'Baboo,' a corruption, I should suppose, of our term Baboon."

At the request of the Chairman, Mr. Ogilby proceeded to make some observations upon a new species of Monkey, now living at the Society's Menagerie, which he characterized as follows:—

PAPIO MELANOTUS. *P. cinereo-brunneus*; capite, dorso, lumbisque sub-nigris; caudá brevissimá, nudá; facie, auriculisque pallidis.

The specimen from which this description is taken is a young male, said to have been brought from Madras. It has at first sight a



considerable resemblance to the common Barbary species (*Papio sylvanus*) both in general colour and in physiognomy, but differs materially in the blackish brown shade which covers all the upper parts of the head, neck, shoulders, and back. The face and ears are of a pale flesh colour, not unlike the shade which distinguishes extreme age in the human species; the naked part of the paws is dirty brown, and the temples are slightly tinged with a shade of scarlet, which the keeper informs me spreads and deepens when the animal is feeding. The tail is about an inch long, very slender, and perfectly *naked*; but whether the last circumstance be not accidental I shall not take on me to say; it *appears*, however, to be the natural condition of the organ. The general colour of the sides, under parts of the body, and extremities, is that pale olive brown so common among other species of this genus, such as the Bhunder (*P. Rhesus*), the Maimon (*P. Nemestrinus*), &c., and the hairs are equally without annulations. The individual has all the liveliness, good-nature, and grimace of the young Magot (*P. Inuus* and *Sylvanus*); but, like that species, it will probably become morose and saturnine as it advances in age and physical development; qualities which, indeed, are common to all the Papios, and pre-eminently distinguish them from the Cercopithecus, Colobs, and Semnopithecus.

## BOTANICAL SOCIETY OF LONDON.

February 15, 1839.—Dr. D. C. Macreight, V.P., F.L.S., in the Chair.

Dr. W. H. Willshire read a paper “On the structure of the Woody Fibre in the tribe *Gymnospermia*.”

March 1, 1839.—John Reynolds, Esq., Treasurer, in the Chair.

A paper was read from Mr. Robert M. Stark “On the Muscology of Cirencester, Gloucestershire,” (communicated by the Curator,) in which he stated that he had observed the following Mosses in that district.

Phascum subulatum.  
                  cuspidatum.  
Gymnostomum ovatum.  
                  truncatulum.  
                  conicum.  
Encalypta vulgaris.  
Weissia curvirostra.  
Grimmia apocarpa.

Grimmia pulvinata.  
Dicranum bryoides.  
                  adiantoides.  
                  laxifolium.  
                  scoparium.  
Tortula enervis.  
                  muralis.  
                  ruralis.





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