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The Alpine Regions of Switzerland and the Neighbouring countries

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Chapter VI.

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CHAPTER VI.

THOUGH some of the larger wild quadrupeds have disappeared from the Alps during the period of history, and others are rapidly being exterminated by the assaults of the hunter and the advance of cultivation, yet several still linger among them which can no longer be found in the neighbouring more level parts of Europe. Chief among these in size is the Brown Bear (*Ursus Arctos*), which is still occasionally found in the Alps. It is, however, exceedingly rare, except in the Grisons and in the districts of Tyrol and Italy bordering on that Canton, where it is still a terror to the shepherd. Some also believe that it even lingers among certain rocky fastnesses in the Jura. According to Tschudi, Bruin's head-quarters lie in the triangle of mountains between the Inn valley and the upper part of the Etschthal, and especially in the forests which clothe the sides of the Ofenthal. He says that when he visited this district in September 1853, he came upon their traces almost every day, and a week never passed without his seeing one or more in some lonely glen. The mountains here are densely covered with the creeping pine (*P. pumilio*), whose snaky branches form a barrier to the hunter or the shepherd almost as impassable as an Indian jungle.

There is, properly, only one species of bear in the Alps; but according to Tschudi the hunters commonly speak of three —the great black, the great grey, and the small brown. The second is, of course, merely an accidental variety of the first, but between that and the third the distinction appears to be more strongly marked, though not sufficient to constitute a distinct species. They assert that the black bear is not only considerably larger than the brown, but is also different in its habits. It is less ferocious, and prefers a vegetable diet, feeding on herbs, corn, and vegetables, with the roots and branches of trees. Instinct, standing in the place of science, points out the fattening properties of saccharine substances, and makes the bear a gluttonous plunderer of the beehives; and as a corrective to over-much sugar it harries ants' nests, formic acid being, one may suppose, the ursine vinegar. It delights in strawberries and all kinds of fruits, to obtain which it often makes long nocturnal expeditions, plundering the orchards, and at times even descending to the vineyards of the Valtelline, from which, however, it always retreats before dawn. Unless irritated or ravenous with hunger, it does not attack either cattle or man. The brown bear, however, is a much more dreaded foe, prowling by night about the sheepfolds, lying in ambush and rushing upon the flocks, and causing them in fright to fall down the precipices. Favoured by mist or brushwood, it springs upon a stray cow from behind, clinging to its victim's head and tearing at the neck, till the animal falls from loss of blood. Its attacks are usually made by stealth; if the herd perceive their enemy, they surround him, bellowing and making hostile demonstrations; upon which he in general retires. Horses are rarely molested, since they shew their heels to the aggressor in more senses than one. Goats, when they scent their foe by night, leap bleating on the châlet-roofs and arouse the shepherds; so that when Bruin rears himself against the wall, to snuffle at the door or window, he not unfrequently

receives a bullet from within by way of a welcome. So long as bears existed in the neighbourhood of Chamouni they were in the winter time frequently shot in this manner. When a track in the snow shewed who had been prowling round a châlet during the night, the hunter fastened a piece of raw meat to the outer wall, and ensconced himself within in a convenient watching place. The bear came, reared himself up to snatch the prey, and at the same moment received a rifle-ball, that generally put an end to his thieving. Sometimes, however, the chase takes place by day; and as the bear is by no means easily disabled, the hunter occasionally gets the worst of it, and there are many stories on record of fierce wrestles for life between man and beast. I will quote one as a sample of many. It happened among the mountains on the north side of the Rhine valley, near Dissentis, in the year 1838. One evening a hunter named Riedi, after tracking a bear for a whole day, arrived at the edge of a precipitous wall of rocks. Here the trail disappeared, but the lair of the beast was evidently in the gorge below; probably, as he conjectured, behind a projecting crag at no great distance, which was approached by a narrow path. Not caring to risk a duel *à l'outrance* with an ambushed enemy, in a situation whence flight was impossible, the hunter tried to entice him forth by yelling and other offensive demonstrations. Bruin, however, was not thus to be moved; so at length Riedi cautiously descended the narrow ledge leading to the supposed lurking-place, and arrived at the mouth of a cave in the shade of the crags. Advancing cautiously towards this, he saw two eyes glittering in the darkness, and an enormous paw projecting from the hole, so close to him that he could have touched it with his hand. He raised his gun and pulled the trigger; it missed fire; but the eyes neither moved nor twinkled. Again he pulled; again it missed; yet still the eyes continued to glare at him. The third time the gun exploded, and an awful howl echoed

through the gorge. The hunter retreated as fast as possible, expecting every instant to feel the claws of the beast tearing him down. He, however, regained the open ground unmolested, and reloaded his gun. The howling had now ceased, so he stole cautiously back to the den. All was dark; he listened; only a rasping noise, as of claws scratching the rock, broke the silence; but thinking discretion the better part of valour he again retreated in haste and returned home. Next morning Riedi retraced his steps with three companions; and two of them, feeling persuaded from what had happened that the wound was mortal, foolishly went unarmed. The other, by name Biscuolm, tying a handkerchief over the lock of his gun and slinging it behind him, climbed down the trunk of a fir-tree which grew close to the mouth of the cavern. Scarcely had he reached the ground, when with two bounds a huge bear sprang out, seized him in its paws, and threw him to the ground. Shouting for his companions, he wrestled with the beast, and at last by a tremendous effort thrust it off, leaped up, and unslung his gun. Before, however, he could free the lock, the bear again charged, so he thrust the butt end into its open mouth. At the same moment Riedi arrived on the ground, and discharged his piece into its side. The bear loosed his hold and retreated a few paces, to make a rush at this new assailant, but the diversion gave Biscuolm time to fire, and his ball was fatal. On examining the body, they found that Riedi's first shot had fractured the jaw, a result which probably saved Biscuolm's life; he had also had an almost miraculous escape from falling over the precipice together with his assailant, when they were rolling on the ledge in their wrestle.

The bear passes the winter in a torpid state, rarely quitting its den, and eating little or nothing; further north, indeed, the animal appears to abstain wholly from food for four or five months, and the stomach becomes blocked with a substance called *tappen*, chiefly consisting of the pinnules of fir. Its den

is carefully prepared for winter quarters with moss, leaves, pine branches, &c., so that the cold may not disturb its repose. Bears appear to hybernate separately, and in January the female brings forth her young. The cubs, from one to four in number, are at first blind. They do not issue forth till the spring has set well in, and remain with the mother up to the following winter. It is said that the male does not diminish much in weight during his long fast; and even the female, after nourishing her young for two months or so, is very little out of condition when she quits her den. If, however, the 'tappen' is cast too soon, the animal rapidly becomes thin: the usual weight is from five to six hundred pounds. The bear is far more active than its unwieldy shape seems to promise, climbing well, digging quickly with its long claws, and running faster than most men.

Concerning their sleep there is a certain 'pleasant vulgar tale,' according to Gesner[1], which appears to have originated in Switzerland. "There was a certain cowherd in the mountains of Helvetia, which, coming down hill with a great caldron on his back, he saw a bear eating of a root which he had pulled up with his feet; the cowherd stood still till the bear was gone, and afterward came to the place where the beast had eaten the same, and finding more of the same root, did likewise eat it; he had no sooner tasted thereof, but he had such a desire to sleep that he could not contain himself, but he must needs lie down in the way, and there fell asleep, having covered his head with the caldron to keep himself from the vehemency of the cold, and there slept all the winter time without harm, and never rose again till the spring time."

A bear is the coat of arms of Canton Berne, and the chief city might be denominated (literally, of course, not figuratively) a bear-garden. Two giant bears guard the western gate, a

[1] *History of Fourfooted Beasts and Serpents collected from the Works of C. Gesner*, by E. Topsel, p. 30 (London, 1658).

pigmy troop marches in procession round a throned figure in front of the clock tower, at the stroke of noon; Bruin also presides over the corn-hall, sits above the fountains armed cap-à-pie, looks on approvingly at the ogre swallowing children[1], stands by the side of Duke Berthold, watches at the feet of Von Erlach, and, finally, is maintained *in propriâ personâ* in a convenient den close to the bridge over the Aar, where he forms, if we may be allowed the expression, one of the principal lions of Berne; being a legatee of property to the amount of nearly thirty pounds per annum, and protected by laws, which forbid the populace to offer anything to their favourite except bread and fruit, lest his health should suffer. Wooden bears look at you from every toy-shop window: bears smoking, bears carousing, bears carrying burdens, keeping a school and inculcating bearish morality, nay even, forgive the bad pun, licking an unbearable cub into shape, in a way that shews the schoolmaster to be at home in his profession. In a word, the motto of the good old city seems to be 'Bear and For-bear.'

The wolf (*Canis lupus*) is rapidly becoming rare in Switzerland, though it still lingers in several lonely parts of the Pennine and Oberland chain, and is most common in the districts about the Engadine and in the Jura. It also is, or was very lately, found in the French Alps, and is not rare in parts of the Tyrol. In summer it roams in the loneliest solitudes among the mountains, skulking among the forests and rocks, and it is only in the winter time, when hard pressed by hunger, that it approaches the haunts of man. Then it wanders far in search of prey, and descends in bands even into the lowlands of Switzerland or to the verge of the Italian plains. It is said to be by no means particular in its food—foxes, hares, rats, mice, birds,

[1] The Kindlifresser-Brunnen; a noted statue crowning a fountain, which represents an ogre swallowing a child, while several others are stuffed into his pockets ready to be devoured in their turn. Below is a troop of armed bears. The two next mentioned statues are near the cathedral.

lizards, frogs, and toads; all is fish that comes to the net; the larger cattle and man are only attacked when it is desperate with hunger or banded with several others. Sheep and goats are at once a favourite and an easy prey; and the track of a wolf in the snow puts a whole village in a ferment. A hunt is at once organized, a chief chosen, men armed with firearms are posted in convenient spots, and the rest of the *chasseurs* beat the woods. At Vallorbes, in the Jura, there is a wolf-club, with an elaborate code of laws, of which no one can become a member until he has taken part in three successful hunts. Tschudi states that the death of the wolf is proclaimed by a flourish of six trumpets, and celebrated by a feast at the inn, whereat, among other 'high jinks,' all convicted of disobedience to the captain during the chase are put in straw fetters and condemned to drink nothing but water.

The same author tells a story of a Grison in the Val Misocco, who, one winter day, after a warm altercation with his wife, walked into the snow to cool himself. A few yards from his house a famished and ferocious wolf sprang upon him. This Grison Samson apparently considered a wild beast a much easier creature to manage than a woman, and saluted his new assailant with a blow of the fist, which killed it at once; then, taking the carcase by the tail, he opened the door, and flung it at his wife's feet. We are not told how this gentle hint or delicate compliment was received.

The young are brought forth in April, under ground, generally in the enlarged burrow of a fox or badger; they are blind for some days, are covered with soft woolly fur of a ruddy colour, and lie at the further end of the den packed together as closely as possible. To give the wolf his due, he is an affectionate parent, by no means of a Saturnine temperament; and the sire and dam alternate, like Darby and Joan on the weather indicators, one going abroad to forage while the other stays at home to guard the nurslings; a necessary precaution, since their

relations are apt to prove 'a little more than kin and less than kind,' and terminate a morning call upon the interesting 'little strangers,' not with the orthodox cake and caudle, but by eating up the babies.

The fox (*C. vulpes*) is very common in many parts of the Alps, though like his English relation, he is not often seen by chance travellers. There is only one species, though the hunters speak of two varieties; one, haunting the forests and lower valleys; the other keeping always on the higher parts of the mountains, ranging over the stony wastes above the upper pastures, and only descending into the cultivated regions when driven down by heavy falls of snow in the early part of the year. The fox is, like the wolf, monogamous; the young, from five to nine in number, are born in the spring, generally early in May, and at first are blind. The burrow, their birthplace, is inhabited during the whole year, and it is said that Master Reynard quite holds to the truth of the proverb that 'fools build houses for wise men to live in,' and often contrives to take possession of a badger's hole, serving a writ of ejection upon the owner by various cunning devices. As Tschudi quaintly observes, "he has far too much imagination and poetic sentiment to like so monotonous and laborious an occupation as burrowing." The cubs, when a few weeks old, accompany their dam outside, and at first feed upon small birds, lizards, frogs, and worms, which are caught for them by her; but when they are about three months old they begin to forage for themselves, and during the autumn quit the domestic earth. The first winter is spent *en garçon*, and they pair in the spring. The mountain fox eats whatever he can catch,—reptiles and birds, hedgehogs, marmots, hares, kids and lambs, and even snaps up such unconsidered trifles as beetles, flies, and bees. Sometimes, though very rarely, he contrives to surprise a young chamois; generally these animals are too cunning and fleet for him. The bodies of sheep or goats that have died on the mountains, or

been killed by falls from the rocks, are a rich feast; sometimes, too, the corpse of some unhappy person who has perished in an avalanche becomes his prey; and it is said that the wounded of his own species are torn in pieces and devoured. Tschudi tells a story of a peasant in Appenzell who used to amuse himself in the winter by placing a bait in a wooden box, and fastening it against a rock so that only a morsel could be torn away at a time. The hungry foxes came by night, sometimes eight or ten together, and held a sort of witch sabbath round it, leaping up like mad creatures, seizing the wood in their teeth, trying to tear it away or pull the box down, and practising every art to get at the flesh within. Frequently he shot some of them, and, though this made the survivors more cautious for a while, they still returned. If the shot was not fatal, the wounded fox was at once followed by the others, who rushed in a body upon it and tore it to pieces.

The fox of the valleys lives more luxuriously than his mountain brother. He devours game and plunders the hen-roosts, as in England, upsets the hives for their honey, and is a terrible robber of orchards. As were his forbears in Judea in the days of the Wise King, and in Sicily in the time of Theocritus, so is he a great pest among the vineyards, and from the mode of training the vines is not often in danger of finding the grapes sour. When rendered bold by hunger in winter time, he skulks near the hen-coops, and as soon as the fowls are let out, pounces upon a straggler and makes off with it at full speed. He is caught by the hunters in traps; but it is diamond cut diamond, and no little skill is needed in deceiving a 'vieux Reynard.' Sometimes he is hunted by dogs, and when he takes to earth is worried out again by terriers. Of course, as the object is to kill the beast, guns and weapons of all kinds are used, as in Scotland; and an Alpine foxhunt must closely resemble the scene so vividly described by Sir Walter Scott in *Guy Mannering*.

The lynx (*Felis lynx*) is still occasionally found in the Alps; but the only place where it is anything but very rare is in the mountain district about the upper part of the Inn. Next to this appear to be the less frequented valleys of the Pennine Alps, to the south of the Rhone, between Martigny and Visp. It is fortunate for the shepherds that they are not common, since the ravages committed by them on the flocks are very serious. One lynx, which was killed in Canton Schwytz during the early part of 1843, had destroyed, during the few weeks previously, 40 goats and sheep; and, some thirty years earlier, three or four of these animals are recorded to have killed not less than 160 of the same during a single summer. In winter it will even burrow under the châlet walls to get at its prey. Besides these, it devours almost all kinds of birds and smaller animals, being by no means particular. It rarely hunts, but prefers to lie in ambush and spring on its victim as it passes; seizing it by the neck, and killing it almost instantaneously by biting through the spine or carotid artery. It generally passes the day couched upon the branch of a tree; apparently half asleep, but wakeful enough if any prey approaches. It shuns the face of man, only fighting when wounded: then the strength of its claws and jaws makes it a formidable opponent. A dog has no chance with it; if, however, the hunter comes suddenly upon a lynx, it does not endeavour to escape, but remains stretched on its bough staring at him until he fires. It is said that if he have not his gun at hand, it is enough to hang some parts of his dress on a stick, and the animal will continue to stare at the 'mawkin' until he returns. The young, two or three in number, are born about April, in some secret crevice in the rock or in the deserted burrow of a fox or badger. They are blind at first. The full-grown animal is about $3\frac{1}{2}$ feet long, and weighs about 50 pounds. The flesh is eaten in the Grisons, and is said to be good.

The wild cat (*F. catus*) still lingers in the most unfre-

quented parts of Switzerland, being commonest in the Alps of Glarus and the forests of Canton Bâle. Its flesh is sometimes eaten; the fur is valuable, and used as a protection by persons with rheumatic affections. The colour is ruddy, or yellowish grey, with an irregular black band down the back, from which rib-like streaks branch off along the flanks; the tail is ringed and tipped with black; and there is a pale spot under the throat. It passes the day stretched out upon a branch, ready to pounce on whatever prey may come within reach of its spring. It can beat a dog in a fair fight, but does not attack men unless provoked. When wounded it flies at the hunter's face; spitting, scratching, and biting, until it is killed; and the wounds from its claws, like those from the domestic cat's, are often difficult to heal.

The badger (*Meles taxus*) is far from uncommon in the Alps, but from its nocturnal habits is rarely seen. It ranges from the border of the cultivated land to a height of several thousand feet above the sea; being found at a greater elevation in the Eastern Alps than in any other district. Its burrow is carefully excavated in slopes with a southern aspect, is provided with from four to eight outlets, and is lined with soft moss and dead leaves. The long curved claws and strong muscles of the fore feet enable the badger to work at a great rate; it loosens the earth with its sharp muzzle, scrapes it away with the fore-paws, and flings it still further back with the hind. The young are born in January, are from three to five in number, and are blind for some days; the female occupies a separate burrow. During the day the badger coils itself up at the end, and only comes forth occasionally to bask in the sun. The skin is valuable for its tenacity; the flesh, after being steeped in running water, is good, resembling pork in flavour: it is in the best condition towards the end of autumn. The fat is used as an ointment for sprains; from 5 to 10 pounds are taken from a single animal. The badger feeds on roots, vegetables, acorns,

nuts, and fruits of various kinds. It is a sad robber of vineyards, biting off the branches to obtain the clusters which are out of reach. The maize-fields also suffer greatly from its depredations. Towards the end of autumn it collects together a quantity of moss at the end of its burrow, and passes a considerable part of the winter in sleep. Owing to its nocturnal habits it is not often shot. The hunter's only chance being to watch its hole in the evening or early morning. It is also very cunning in avoiding traps, so that it is generally either dug out, drawn by dogs, or pulled out by a pole with nippers or a hook at the end. In Canton Glarus, according to Tschudi, they adopt a very barbarous method of capturing it. "The hunters introduce into the burrow a long pole, having at the end a kind of double corkscrew; this is twisted round and round till the unfortunate beast is transfixed, when it is drawn like a cork from a bottle and killed by a rap on the muzzle." The same author says, "Of all its enemies the badger hates the fox most cordially, since the cunning rascal often disturbs its repose by depositing stinking ordure in the mouth of its den. The badger carries to excess its love of cleanliness, and even prefers to desert a warm and comfortable dwelling to having its nose offended by the arts of this infamous master Reynard. So it comes growling out of its burrow and sets to work to dig another—meanwhile the fox and its family take up their quarters in the old one, while it is still warm."

Of the less ferocious quadrupeds the otter (*Lutra vulgaris*) is common along the borders of the rivers and lakes; the beech marten (*Mustela foina*) and pine marten (*M. martes*)—supposing them to be distinct species, a very doubtful matter—are not uncommon in the forests; while the polecat (*M. putorius*), the weasel (*M. vulgaris*), and the stoat (*M. erminea*) are often more abundant than is agreeable to the keepers of poultry. The last turns white in the winter, as it often does in the mountain districts of Great Britain. The squirrel (*Sciurus europæus*) is

common enough in the forests, and I have often watched them leaping from branch to branch. They vary greatly in colour; some being a very dark brown approaching black upon the back. Of 'rats and mice, and such small deer,' there is no lack.

Whether the beaver (*Castor fiber*) also still lingers by some lonely stream in the Alps, I am unable to say positively. It is mentioned in a list of Swiss mammals, published in 1817[1], as found, though rarely, in the most lonely spots on the banks of the Sill, Reuss, Aar, and Sarine, the lakes of Brienz and of the Klonthal, and the streams of Mont Pilatus. It also used to frequent the Rhone, and I have seen specimens of it from that river in the Museum at Grenoble, but I much doubt whether it can now be found in any Alpine district.

The rabbit (*Lepus cuniculus*) is far from common in the Alps. Not so the hare, of which there are two species—the brown hare (*L. timidus*), which appears to be seldom found beyond a line of from four to five thousand feet above the sea (I have seen it near Bormio at about the former elevation); and the blue or variable hare (*L. variabilis*), which I have met with in various districts up to a height of about nine thousand feet; an instance indeed is recorded of its having been observed on the Wetterhorn, in the Bernese Oberland, at a height of eleven thousand feet. In summer its fur is of a dull bluish-grey, and it frequents the stony and desolate tracts bordering on the snow regions; in winter it becomes perfectly white, and is forced to descend into the forests, whence, however, it retreats as soon as possible.

The marmot (*Arctomys marmota*), called *marmotte* by the French, *marmotta* by the Savoyards, *murmelthier* by the Germans, and *montanetta* by the Romansch, is common in all the higher Alpine districts. Often, when the traveller is breasting some slope of coarse turf far above the highest châlets, or crossing the stone-strewn floor of a lonely glen, he is startled by a

[1] *Conservateur Suisse*, Vol. VIII. p. 271.

long shrill whistle which breaks the silence of the mountain solitudes, and is unpleasantly suggestive of a bandit's signal. This, however, is nothing more than a sentinel marmot warning its companions that an intruder is approaching. The cry is perhaps repeated twice or thrice, and then a quick eye may detect the little creatures loping off towards their burrows, but it is no easy matter to distinguish them from the grey rocks, among which they are making their way. Occasionally, however, I have approached them unperceived and been able to watch them for a few minutes; but they soon scent danger, utter the signal, and disappear. They generally take up their position on some flat piece of rock, exposed to the sun, where they bask and play, scratching and combing themselves, now and then sitting up on their sterns with their fore-paws hanging down in a very droll kangaroo-like fashion. The fur is a yellowish or brownish grey, with black on the head and face, and a little white on the muzzle; the tail is short, bushy, and tipped with black. The fat is believed to have medicinal virtues, and the flesh is not at all bad eating; in taste it is not unlike rabbit. Marmots are caught in traps, and sometimes hunted down by trained dogs; more frequently, however, they are shot; but the watchfulness and caution of the little animal make it no easy matter for the hunter to get within range. The best plan generally is to lie concealed behind a stone to leeward, at a convenient distance from the mouth of a burrow, and wait for the occupant's coming out.

Usually the marmot does not inhabit the same hole all the year round. The summer burrow is excavated somewhere in the zone of rough pasture, which intervenes between the snows and the upper limit of the tree region. The entrance, according to Ladoucette[1], always looks to the south or the east; it is sometimes, like a rabbit-hole, in the face of a slope, but more frequently under some fallen block, which at once affords con-

[1] *Les Hautes Alpes*, p. 413.

cealment and protection. So far, in fact, as my experience goes, the marmots always prefer the most stone-strewn ground for their haunts. Towards the end of autumn they descend to the pastures which the herdsmen have just abandoned, and there excavate their winter dwellings. These are much larger than their summer burrows. The entrance gallery is from ten to twenty-five feet long, but only just large enough to let the owners pass, and leads up to an oven-shaped chamber, which is from three to six feet in diameter, and is well lined with dry leaves and hay, which have been collected before the snows begin to fall; the contents being often a heavy load for a man. The burrows are generally, like those of rabbits, provided with a bolt-hole.

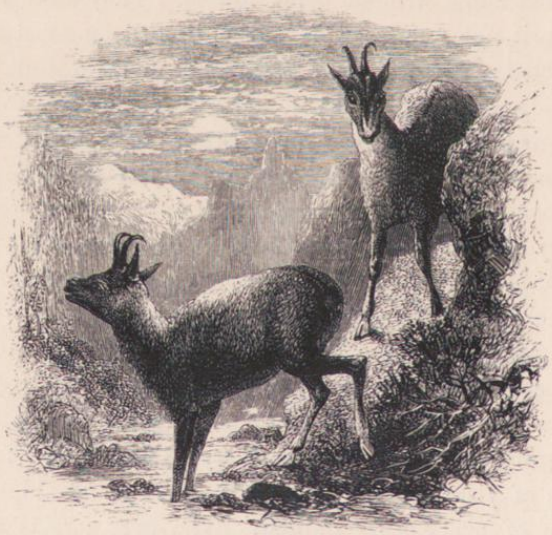
About the middle of October, when the cold weather sets in, the marmots retreat into winter quarters; not as in summer going in pairs, but in companies of ten or twelve, and sometimes fifteen in number. The passage is plugged, a few feet from the entrance, with a mass of earth, stones, and hay; and the marmots rolling themselves up in balls, nose on tail, snuggle together, and go to sleep for six months or more. During this long period of torpor the vital functions are almost suspended; digestion ceases, the stomach being absolutely empty; the blood becomes thin and diminishes in quantity; the action of the heart and lungs slow. It respires, it has been calculated, about as many times during its six months' slumber as it does in two days when awake; and consumes in the former case only 1·82 times as much oxygen as it does in the latter. The temperature also of the body is of course, during this period, greatly lowered, not being higher than about 49° (Fahrenheit). In fact, its life seems then in many respects to approximate to that of a cold-blooded animal, especially in what may be called its tenacity; for it has been observed that, in the case of an animal killed when dormant, the head did not become perfectly motionless for half an hour,

and the heart continued to beat for three hours after death. The hunters do not let them alone, even while they are hybernating, but sometimes succeed in digging down to their cave and extracting the sleepers,—generally more than seven in number. So sound is their repose that, according to De Saussure, they may often be taken out, placed in the game-bag, and carried home without being roused. They wake up again about April, not so much the worse for this long fast as might be expected; and the young, three or four in number, are born in June. Being not difficult to tame, they sometimes make their appearance in London streets with a poor Savoyard lad as keeper; and are also one of the numerous devices for getting pence from the traveller and training up children in the way they should not go—that of covert mendicancy—which has found so much favour at Chamouni and in the Oberland.

The chamois (*Capella rupicapra*), the *gems* of the German districts and *camoscio* of the Italian, seems to be the animal which, beyond all others, is identified with the High Alps. In the wood-carvers' shops, chamois, great and small, singly and in groups, are perched on every shelf; finding favour in the eyes of visitors, even beyond the bears, and almost to the exclusion of every other animal. Who ever forgets the time when he first, perhaps after many disappointments, caught a glimpse of a chamois; and however commonly he may afterwards come across them, 'where I saw those chamois' will be generally found to be in his mouth as a mark to identify some stage in an excursion. The chase appears to exercise a fascination over its votaries that no hardship or danger can overcome, and even the most phlegmatic of Teutonic guides become excited when once the word *gems* is pronounced.

This animal, the sole modern representative of the antelope family in Western Europe, is found in almost every part of the Alps, as well as in the Pyrenees, Carpathians, and Caucasus. Owing, however, to the persecution which it has undergone of

late years, it is now much rarer in the Alps than it used to be, and has almost disappeared from some of the more frequented districts. Even in the days of De Saussure, chamois were becoming scarce in the neighbourhood of Chamouni, and now they are probably quite extinct. In such unfrequented dis-



(Fig. 9.) Chamois.

tricts as Dauphiné, the Tarentaise, and the Graians, and in parts of the Swiss, Tyrolese, and Bavarian Alps, they are still far from uncommon; and the traveller who deserts the beaten tracks will not unfrequently fall in with them. Sometimes they are seen singly; generally, however, three or four are together. The largest number that I ever observed at once was seventeen: these were in a secluded amphitheatre of rock and snow in the heart of the Dauphiné Alps, into which probably no traveller had ever before penetrated; and I saw a herd of fifteen on the slopes high above the east side of the Val Roseg in 1867.

The chamois stands at the shoulder about two feet from the ground. The hind legs are longer than the fore, rendering its gait awkward on level ground, and not very clever on a steep descent, but exactly fitting it for mountain climbing. The muscles, especially of the former, are exceedingly powerful, enabling it to check itself almost instantaneously when at full speed, and to spring with extraordinary agility. The hoof cloven, long and pointed, with sharp edges, is not well adapted for traversing the ice; the chamois therefore, if possible, always avoids the glaciers, and is obviously often ill at ease on them. On the snow, provided this be tolerably hard, it spreads its cleft hoof as wide as possible, and so gets on better, but it is only thoroughly at home on the rocks. It is very shy of venturing on the upper part of a glacier, having a great fear of the concealed crevasses; and the track which it leaves on the snow in these places often shews, by its windings and abrupt turnings, that the animal has found it no easy matter to escape from among so many hidden pitfalls. Travellers not unfrequently find this a useful clue to indicate the safest way of threading the maze. So I found it once in Dauphiné when ascending to a pass called the Col de Sais. We had taken a guide from La Bérarde, and the man, as is common in those parts, was almost useless; and when we came to some masked crevasses in the upper part of the glacier, declined to proceed further. We determined not to go back without an attempt; and espying from a distance the track of a chamois in the most broken part, made for it, and by following this, reached the smooth snow-fields above the icefall without much difficulty.

Its agility is something extraordinary; it can spring across chasms six or seven yards wide, and "with a sudden bound leap up against the face of a perpendicular rock, and merely touching it with its hoofs, rebound again in an opposite direction to some higher crag, and thus escape from a spot where, without wings, egress seemed impossible. When reaching upwards on its

hind legs, the fore hoofs resting on some higher spot, it is able to stretch to a considerable distance, and with a quick spring will bring up its hind quarters to a level with the rest of the body, and with all four hoofs close together, stand poised on a point of rock not broader than your hand[1]." Mr Cowell[2] mentions an instance where a mortally wounded buck in four bounds cleared a space of more than forty yards. The gambols of a herd of chamois are most diverting; they leap up, springing like skipjacks from their long hind legs, run round and round, up and down, and even sideways, with great nimbleness, reminding one with their tricks and 'buck-jumps' not a little of the antics of a party of lambs. If disturbed, they gaze fixedly towards the spot whence the noise comes, till they have discovered what is wrong; then, unless danger is imminent, with a shrill Phew! move up leisurely towards their rocky fastnesses, halting now and then to look back, and again uttering the cry as they renew their march.

A full-grown chamois, in good condition, weighs about sixty pounds. Mr Bonar mentions instances where they have reached from seventy to more than eighty pounds; these are generally old bucks. The hair is thick, and changes colour with the season, being a red yellowish brown in summer, and almost black in winter. That about the nose, forehead, lower jaw, under the belly, inside the legs, and overhanging the hoofs, is of a yellowish brown, and does not alter; and the dark stripe, partly enclosing each eye and reaching from it to the adjacent corner of the mouth, is permanent. The outer hairs are rather coarse; on brushing them back, the thin wool below is seen to incline to a mouse-grey tint; and those along the ridge of the spine are in winter longer than the rest, and tipped with white;

[1] Bonar, *Chamois Hunting in Bavaria*, p. 97; a fascinating work, written by a thorough lover of nature and Alpine beauty.

[2] *Vacation Tourists*, 1860, p. 260.

from these is made the *gems bart*,—a tuft of hair, which forms a favourite ornament in the hat of a Tyrolean peasant.

The horns, which are pot-hook shaped, rise from the head above and between the eyes to a height which rarely exceeds seven inches; an average pair will be barely six inches high, and about eight and a half in length, measured along the outer curve. Their section at the base is very nearly circular, the curve being sometimes slightly flattened at the sides. This flattening becomes much more marked towards the upper part of the horn, but is again diminished in the immediate neighbourhood of the point, which is sharp and polished. The horn is plainly marked by transverse horizontal rings of growth for about the lower half, and is finely striated longitudinally to within an inch or two of the tip, both rings and striæ being gradually obliterated as they go upwards. When the kid is about three months old the horns make their appearance, and at first are not nearly so hook-shaped as they afterwards become; a pair in my possession, about three inches long, are very nearly semicrescent, and in general form resemble a miniature cow-horn. Mr Bonar[1] thus describes those of the full-grown animal. "They do not stand up perpendicularly, but slant forwards at a right angle with the forehead; their points, which are very sharp, being bent back and downwards. This feature is not peculiar to the buck alone; there is, however, considerable difference between the horns of the male and female, which often assists the sportsman in distinguishing the two. The horns of the male chamois are thicker and altogether stronger-looking than those of the female; and, instead of diverging from each other in so straight a line as hers generally do, their outline describes a slight curve as they rise upwards and apart from each other. But a still more striking characteristic of the buck is, that the points of his horns are bent much more inwards than those of the doe; hers form a semi-

[1] *Chamois Hunting in Bavaria*, p. 89.

circular curvature towards the back, while his, turning over abruptly, form rather a hook."

The chamois feed on various mountain herbs, and on the buds and sprouts of the rhododendron and latschen (*Pinus pumilio*). During the night they couch among the broken rocks high upon the mountains, descending at day-break to pasture, and retreating, as the heat increases, towards their fastnesses. They are very fond of salt, and greedily lick any saline efflorescence from the rocks. In the winter season they are forced down to the higher forests, where they pick up a scanty subsistence from moss, dead leaves, and the fibrous lichen, which hangs in long yellowish-grey tufts from the firs, and bears the name of 'chamois-beard.' While browsing on this, they sometimes get their horns hooked on a bough, and so, being unable to disentangle themselves, perish with hunger. I have indeed heard of an instance of the dead body of a chamois being found suspended by the horns from a projecting ledge of rock, with its feet just touching the ground, which apparently had perished in the same way. I have also been told, on the authority of a chasseur in the Val d' Aoste, that sometimes, when they have retreated during a snow-storm under a fir-tree for shelter or for food, the branches, bending down under the weight of snow, enclose them on all sides; and being imprisoned in this snowy wigwam, they are starved to death, instinct not teaching them how to escape When spring returns, their bodies are found, sometimes three or four together, at the foot of the tree. Owing probably to the resin contained in so much of their food, and its fibrous character, a hard, dark-coloured ball, from the size of a walnut to that of an egg, of a bitter taste, but pleasant odour, is often found in their stomachs. This is called Bezoar, and it was anciently supposed to cure all evils, and be a protection even against musket-shots. A sceptical age has, I fear, expelled it from the pharmacopœia.

The senses of hearing, smell, and sight are exceedingly acute, so that the hunter must exercise all his craft to approach the chamois. The general plan is to stalk them, by making a circuit out of sight, and creeping within shot up the wind, under cover either of rocks or of brushwood. Now and then, however, they may be taken off their guard. One day I was with a friend and two guides at the top of a pass called the Col de Cristillan, which crosses, at the height of about 9700 feet, a lonely range on the right side of the valley of the Ubaye. As a rather keen wind was blowing from the north, we sat down to rest and dine, just under the cover of a few projecting rocks which were close to the narrow opening forming the pass. We had risen up to continue our journey, and were still standing a few feet below the ridge, when I heard a clatter over the loose stones on the other side, and, turning round, saw a chamois leap up into the gap. For a moment it stood staring at us, apparently horror-stricken at finding itself face to face with its most dreaded foes; then, with a series of desperate bounds, leapt away down the rocks to the left, while our guides yelled and hurled stones after it. Generally, however, the chamois-hunter must endure hardship and fatigue, risk his life by scrambling up crumbling cliffs and along dangerous ledges of rock, happy if, after a day or two's labour, and perhaps a night spent in the open air, he return home with a chamois slung on his back. Often, when, after long watching and much toil, he is almost within range, the wary animal takes the alarm before he can fire, and retreats to rocky fastnesses where pursuit is hopeless. Pages might be filled with the hair-breadth escapes and fearful accidents which have befallen hunters. This following story, though it has been often told before, will perhaps serve better than any others as an example. Two chasseurs of the Sernfthal, Manuel Walcher and Rudolf Bläsi, were one day out hunting, when they perceived a chamois at some distance from them. In order to prevent its escaping, they determined to separate, and

approach it from opposite directions. Bläsi, in the excitement of the chase, leapt across a chasm on to a narrow ledge on the face of a cliff; once there, he found that it was impossible to proceed further, and to his horror discovered that, as the side on which he stood was lower than the other, and the footing not good, it was impossible to spring back again. He was in a trap, and, to make matters worse, the ledge was so narrow that he could neither sit nor lie; therefore he was obliged to stand against the cliff, leaning on his rifle, and shouting for help, with the yawning gulf below, into which, when once his strength failed, he must inevitably fall. Tears, prayers, cries, seemed all in vain; slowly the sun crept towards the horizon, but no help came; evening darkened into night; a storm drifted up, and broke upon the mountains, increasing the horror of his fearsome vigil; but at last the dawn brightened in the east. Then the sun rose, and hope revived; his companion would surely come in search of him; but still the hours wore on; he grew sick and faint from hunger and fatigue; his head began to swim; and in a few minutes all would have been over; when a shout from above recalled him to life, and he saw Manuel looking down upon him. A rope was soon lowered to Bläsi, who with trembling hands secured the noose about his body, and was hauled up to a place of safety. He was sound in limb, but the horror of that one night had done the work of years, and blanched his hair.

Though horns, flesh, and skin are all worth money, yet it is rare that a chamois-hunter finds his occupation profitable. Tschudi, indeed, tells of one instance where a considerable sum was amassed by the produce of the chase. This was by a noted hunter, named David Zwicky, of Mollis near Glarus, who was said to have scraped together by the sale of this and various other game, combined with strict economy, a sum of £560, besides other property; having received from his father a patrimony of only £12. He, however, was said to have killed in his lifetime

more than 1300 chamois and an immense quantity of marmots, hares, grouse, partridges, and other game; and so perfectly did he know the haunts of the first animal, and so skilful was he in his craft, that it was a rare thing for him to miss securing his prey when once he had started in pursuit. At last one Saturday evening, when he was seventy-five years old, he failed to return home as usual. Fearing something was amiss, his friends searched for him, but in vain: for nine months nothing more was heard or seen of him; then one day a skeleton was found in a lonely part of the mountains, which was recognised as his by the gun, watch, and fragments of clothes that lay around it. No bones were broken, but one foot was tied up in a handkerchief, and the corpse was resting on one arm as if asleep. Probably he had been lamed by a sprain or a severe bruise, and, becoming exhausted, had sat down where he was found and died from cold or hunger. Numbers of other hunters have been killed, but all seem to be animated with the spirit of the young peasant of Sixt, who said to De Saussure[1], "My grandfather met his death while out on the hunt, my father did the same, and I am so persuaded that I too shall die in this pursuit, that I call this bag which you see, Sir, and which I carry with me on the hunt, my winding-sheet; because I am sure that I shall never have any other; and yet if you were to offer to make my fortune on condition that I would abandon chamois-hunting, I would not accept your proposal." Two years after, says De Saussure, his presentiments were fulfilled, and he was found dead at the foot of a precipice.

In many cases the dangers of the chase are greatly increased by the feuds between the hunters of neighbouring cantons or states. Formerly, a trespasser was often shot without the slightest compunction by the native hunters, and so might think himself very lucky if he escaped with the loss of his rifle and being beaten within an inch of his life; nor did it go much better

[1] *Voyages dans les Alpes*, § 736.

with the rightful owners, if the intruders were the stronger party or caught them unawares. De Saussure, in the passage to which I have just referred, tells a story which he heard from a chasseur of Sixt, who had been the chief actor in it. This man was following up a chamois, which he had already wounded mortally, when two intruders from the Valais also saw it and gave it the *coup de grace*. Still, according to all the laws of the chase, it belonged to the Savoyard, who came up just at the moment, took it on his shoulders, and walked away. The others, owing to the nature of the ground, could not come straight towards him; they however shouted to him to put it down, and sent a ball whistling about his ears by way of enforcing their orders. Without heeding this, he was pressing on; when another ball whizzed close by him; whereupon as he could not get on quickly, owing to the roughness of the ground, and had no ammunition left with which to fight for his prize, he thought it wiser to obey their orders. Vowing vengeance, he went away to a hiding-place, whence he could watch their movements; feeling sure that the day was too far advanced for his spoilers to return to their own country. Things fell out as he expected; and he marked them down in a deserted châlet on the upper pastures; then he went in all haste home, two leagues away, got powder and ball, loaded his double-barrelled gun, and cautiously stole up to the châlet. Peering through the chinks in its timber walls, he soon saw his enemies seated by the fire; inserted the muzzle of his gun in such a way that he could fire right and left; aimed at one, and was on the point of pulling the trigger, when it suddenly occurred to him that these men, not having confessed since they had fired at him, would die in mortal sin and therefore be lost eternally. On consideration, this appeared to be a punishment so out of proportion to the offence, that he abandoned his project; and entering abruptly into the châlet told them of the danger which they had run. They, thanking him for their lives,

owned that they had been in the wrong, and gave him half the chamois!

Even more deadly was the hatred between the keepers and the poachers in the Bavarian highlands. The former shot the latter with little compunction, whenever they could not easily take them prisoners; and if, as was often the case, the intruders were from the Tyrol, they were treated with no more ceremony than a vulture. Nor were the latter slow to retaliate when they got a chance. Several instances of this have a place among the Alpine scenes in the well-known novel 'Quits;' and Mr Bonar's book contains still more. I shall venture to make an extract from the latter as a sample[1]: the incident happened near Braunenburg, a village just within the Bavarian frontier.

"One of the keepers, while out on the mountain, saw three Tyrolese cross the Inn. He at once suspected what was their intention, and instantly set off for a pass among the rocks, where, if he was right in his conjecture, he knew they would surely come. For an hour or more he waited, without hearing or seeing anything of them. At length however he espied the poachers advancing up the mountain, and, keeping close to avoid being seen, let them approach. The place where he stood was a narrow path, with rocks rising on one side and on the other a precipice. When the men were at a short distance from him, he stood forth and called to them to lay down their rifles. As they did not obey, he shouted that, cowards as they were, he would lay down his, and challenged them, if they dared, to do the same and come all three of them armed only with their poles. They did so, and the three advanced upon him. Calm and collected, he watched his opportunity, and, as they approached, thrust his iron-shod pole two inches deep into the breast of the foremost man, and sent him toppling down into the abyss. The others, terror-stricken, sprang back to seize their

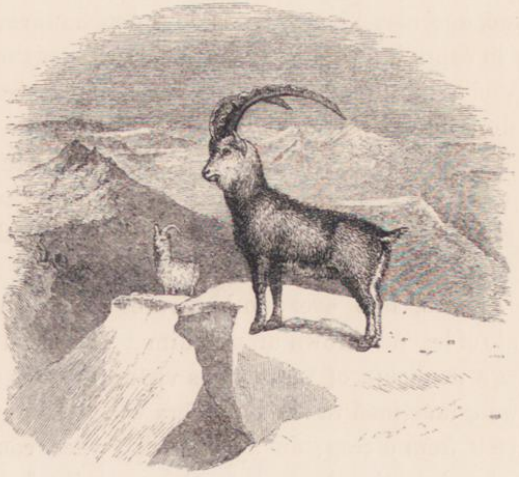
[1] *Chamois Hunting in Bavaria*, p. 419.

rifles, but the keeper was too quick for them; he had already grasped his own, and levelling it threatened to send a bullet through the first who should dare to raise his weapon. There was nothing left them now but to retreat; and as they did so the keeper fired at one, sending a charge of coarse shot into his back and wounding him badly."

The bouquetin or steinbock (*Capra ibex*) was once abundant in the greater part of the Alps, but is, I believe, now restricted to the Graian chain in the neighbourhood of the Grivola and Grand Paradis, where they are most strictly preserved by the king of Italy. They disappeared from the Tyrol about a century ago; in Switzerland, the last in Canton Glarus was shot in 1550; they were becoming rare in the Engadine and neighbouring districts in 1612, when it was forbidden to hunt them under a penalty of fifty crowns; one was shot on the St Gothard in the middle of the last century; and they lingered still longer in the Pennine chain. De Saussure observes that in his time they had ceased to be found near Chamouni; but Mr Hinchliff says that one was shot on the south side of the Grandes Jorasses in 1856[1]. The Dent des Bouquetins, between the heads of the Val Pelline and the Val d' Annivièrs, takes its name from them, and Tschudi states[2] that a few years since they were met with in the neighbourhood of Monte Rosa. This, however, Mr King[3], who devotes several interesting pages to their history, denies. In the district already named they are not very rare. I have never, although I have been several times among their haunts, had the luck to see more than the track of a bouquetin, but some of my friends have been more fortunate, and two among them have even found their skeletons. The laws concerning them are very strict. It is even forbidden to possess any part of them; and twenty-four pounds fine and nine years at the

[1] *Summer months among the Alps*, p. 207.
[2] *Les Alpes*, p. 645.
[3] *Italian Valleys of the Alps*, p. 338.

galleys is the penalty for killing one. Mr King, however, managed to purchase a pair of horns, but he had some trouble and several amusing adventures in smuggling them out of the country. The horns of a full-grown buck are at least two feet long, and curve very gracefully backwards as they rise from the head, spreading slightly outwards. Along the flattened front of each horn is a row of knobs or horizontal ridges, culminating on the well-defined line between it and the inner side; these are the rings of annual growth. Mr King states that on his pair, which are two feet long, there are eight of these marks; on a smaller pair now before me, which are fifteen inches long, there are six; these I purchased at Aosta three or four years ago. The horns of the female are much smaller in proportion, less curved, and less prominently ringed than those of the male; those of a specimen belonging to Mr King, whereon are fourteen rings, are only seven inches long.



(Fig. 10.) Bouquetin.

Of course a weight like this on the head requires a corresponding frame to carry it; and the bouquetin is consequently

far more muscular than the chamois. Its whole build is remarkably strong, giving it a sturdy self-reliant look, differing greatly from the slender and rather fragile appearance of the chamois: still it is not less, perhaps is even more, agile than that animal; for a young one has been known to take a standing leap as high as a man's head; and its sureness of foot is equally surprising. The bouquetins are, however, calmer and less restless in their habits than the chamois, and all who have come across them have noticed their stately and almost disdainful gait. Their time of feeding is also different; they descend towards the pastures in the evening, browse during the night, and retire very early in the morning to the higher peaks, where they pass the day among the rocks. They are generally found in small troops; but the bucks lead a solitary life during the early part of the year. They pair in January, at which time the males fight furiously; they will also couple with the common goat, and the hybrid offspring are fruitful. The kid is born in June, and may be tamed; it does not, however, seem to be healthy in captivity, and is liable to diseases of the feet and nostrils. A closely allied species, *C. pyrenaica*, exists on the Pyrenees, differing slightly in the form of the horns, which is probably identical with the *C. hispanica* of the Sierra Nevada. Another species, *C. caucasia*, is found in the Caucasus, and a fourth, *C. bedens*, in Crete, in some of the islands of the Archipelago, and on Mount Olympus.

The bouquetin, like every other rare animal, has had a plentiful halo of legend thrown around him. The blood was supposed to be a medicine of marvellous virtue in cases of stone; the horns were imagined to act as buffers when the animal precipitated itself from a crag; an aged buck[1], when conscious of the approach of death, climbed to the summit of some lofty mountain, and there hooking itself on to a rock with one of its

[1] *History of Fourfooted Beasts and Serpents: collected from the works of C. Gesner* by E. Topsel, p. 349 (London, 1658).

horns, twirled round and round, like a dancing Dervish, until the tip was worn away, whereupon it expired. As a bathos of equal absurdity, and more unpardonable ignorance, take the following extract from an 'Own Correspondent's' letter in the *Times* of Aug. 16, 1861 (p. 8), describing the exploits of the present king of Italy when chasing the bouquetin. "The horn is wound, the hunt is up, and away he rides as fast as the nimblest mountain nag can carry him, and then takes to his legs, and the race is between him and the swiftest quadrupeds, over crags and along gullies common men shudder only to look at. He came back to Turin a few days ago in great glee, telling his friends he had given chase to a bouquetin for two whole days, had parted company with his aides-de-camp, his guides, his huntsman, every man in his suite; he had followed the coy mountain goat, he had pressed closer and closer, he had driven it higher and higher and higher up; he had knocked it up, blown all the wind out of its panting body, and had at last brought it back triumphant, the prize of that untamed strength which has no match in these regions." It is really delightful to find such a refreshing oasis of viridity in the dry desert of a sceptical age; the author of the above must have been a very prince among *gobemouches!*

The roe (*Capreolus capræa*), the fallow deer (*Dama vulgaris*), and the red deer (*Cervus elaphus*) have, it is said, quite disappeared from the French and Swiss Alps. All of them still occur in the Bavarian and Austrian highlands. They belong, however, rather to the sub-alpine region, being found among the forests which clothe the lower slopes, and do not often wander into the more rocky districts. The first, I believe, has rather the highest range. The wild boar (*Sus scrofa*), also, only now and then makes its appearance across the Rhine, although it is common in the sub-alpine forests further east; its habits, however, hardly qualify it for admission into the list of Alpine quadrupeds.