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AN ESSAY

ON THE

UNMANUFACTURED ANIMAL REMAINS

IN THE

Royal Irish Academy:

ILLUSTRATIVE OF THE

ANCIENT ANIMALS OF IRELAND.

BY

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UNMANUFACTURED ANIMAL REMAINS,

&c., &c.

IN arranging the collection of Irish Antiquities belonging to the Academy, I found a great number of bones, chiefly the crania of carnivora, ruminants, and swine, presented to us at different times during the last nineteen years, and for the most part deposited in the crypts beneath the Library and Museum. This collection was commenced at the time of the discovery of the Dunshaughlin crannoge in 1840—when I deposited in the Academy many specimens of the various animal remains found in that vast bone heap. (See Proceedings, vols. iv. and vi.) Since then, some of our members have from time to time presented individual specimens, considering the Academy the most suitable receptacle for such objects. But a large proportion of the collection was presented by the Board of Works and the Shannon Commissioners, during the drainage operations carried on in different parts of the country from the year 1846 to 1853.

In presenting the Dunshaughlin bones, which were all found in connexion with the remains of man, my object was solely ethnological—the animals to which they belonged had in life been associated with man, had ministered to his wants, or were subservient to his amusements; several of them bear unmistakable evidence of having fallen by his hand; and all were found in connexion with those antiquities which illustrate his social history, from the mid period between the introduction of Christianity to the present time. Not so the great majority of those presented by the Board of Works, which were discovered in deepening the beds of rivers, or in land cuttings, totally unconnected with any vestiges of the human race, and several in situations where geologists believe they were deposited prior to man's occupation of this portion of the British isles. In our former premises in Grafton-street, the Dunshaughlin bones were displayed in the Museum or the Library. In the present house all those osseous specimens were stowed away among the lumber of the crypts, neglected, if not unknown—no attention having been bestowed upon them by our naturalists; and some had never been removed from the cases in which they had been forwarded to the Academy years ago.

Under these circumstances I have imposed upon myself the task of bringing them under the notice of the Academy, numbering, and arranging them, and of putting on record, when possible, the circumstances under which they were found, while yet we possess sufficient material of either a traditional or documentary nature to enable us to do so.

As, however, one of the divisions under which I have arranged our Museum of Antiquities consists of "animal material," including objects of bone, horn, skin, wool, hair, and gut, used in the arts, and embracing leather and woollen fabrics, I have excluded all the specimens now under consideration, and classed them under the head of Unmanufactured Animal Remains. As no other collection of this nature is known to exist in Ireland, and as it includes upwards of one hundred and eighty specimens, I take this opportunity of offering some observations upon the ancient Fauna of Ireland, as connected with the early history of the country. As yet we possess but imperfect knowledge upon the subject. (See the Journal of the Geological Society, vol. i., p. 224.) The remains of extinct animals are much fewer than in England; but then it must be remembered that our investigations have hitherto been very limited; even now the great bone cave, just discovered at Dungarvan, containing those invaluable remains lately described at a meeting of the Royal Dublin Society by Dr. Carte, shows what may be expected when accident or intended exploration shall have made a stricter investigation beneath the surface of our island.*

Many references to our ancient animals can be found scattered throughout the annals, bardic histories, and tribute lists in early times; but among the many legends, both mythical and founded on fact, relating to the animals proper to this country, and preserved in the vast collection of Irish MSS. belonging to the Academy and the Library of the University, there is none so curious as the following extract from a poem preserved in one of the manuscripts purchased by the Academy from Messrs. Hodges and Smith (S. 149, 2/36, p. 436) and for which every lover of Irish history is deeply indebted to Mr. Eugene Curry. This curious zoological and topographical poem, the original of which he believes to be as old as the ninth century, is certainly one of the most remarkable productions of its kind known in any language in Europe of the same date. The history of the poem is as follows:—Finn Mac Cumhail was made prisoner by Cormac Mac Art, monarch of Erin, who, however, consents to liberate him when a ransom of two of every wild animal in Ireland, a male and female, were brought before him on the green of Tara. Cailte Mac Ronain, the foster-brother and favourite of the celebrated Irish general (see "Annals of the Four Masters," under A.D. 286), having first performed many remarkable feats at Tara, in the King's palace, undertook, and succeeded in accomplishing his apparently hopeless task within a twelvemonth; and, in this poem, is said to have related to St. Patrick the result of his mission. There is, perhaps, no other example in the Irish language of the same extent, containing so many words—names of animals—of which the meaning is not known; and there are but few poems of so many lines requiring the same amount of topographical annotation. In this latter department I have been much assisted by Dr. O'Donovan. The names of several ani-

* See the Journal of the Royal Dublin Society, No. XV., for October, 1859, pp. 44 and 351.

mals are, as stated, untranslatable; either the animals themselves have become extinct in this country, or they are now known by other names than those preserved in the MS. Many years ago, Mr. Curry kindly placed at my disposal a translation of this poem, which, in the March of the year 1854, I published in the "Dublin University Magazine;" but the Irish which he now presents has never been printed before.*

Very recently, Mr. Curry discovered a prose account of this tale in the Book of Lecain, which, in his opinion, tends to authenticate its great antiquity. The only difference between the poetic and the prose version is, that instead of the animals being required as a ransom for Finn, they were requested by Grainne, the daughter of King Cormac (the lady who subsequently eloped with Diarmait), during the courtship of Mac Cumhaill.

To this poem have been added topographical notes, chiefly for the purpose of directing special attention to the places therein referred to, as likely habitats for certain animals, and in the hope that some of our Irish-speaking people in their vicinity may still remember the as yet, to us, unknown names. Until we learn what animals were understood by these, we cannot say, with any degree of certainty, what creatures are wanting in the list. It is, however, well worthy of note, that the localities specified are just such as naturalists would expect to furnish these particular animals—thus, the wild oxen were sought for in the then impassable districts of Clare; the otters beneath the overhanging rocks; the cranes and wagtails from the river's brink; the cuckoos and hawks from the green woods; the eagle from the tall cliff; the grouse from the wild heathery bog; the fox from the rocky mountain; the ducks and waterhens from the inland lake; the gull and the curlew from the sea-margin; the lark from the broad plain; the corncrake from the Shannon's bank; the bat out of the dark cave—and so forth, all showing accuracy of observation, as many of these places are still the most likely haunts for these very animals specified in this poem. There are a few apparent exceptions, such as that of the swans from the wood of Gowran, but that may yet be explained.

It is hoped that the present publication of this poem in the Irish language will add many more names to the translation. *Cailte*, it is said, thus addressed the Saint:—

* The late Dr. Ball mentioned the circumstance of the existence of this poem to the Academy in 1844. See Proceedings, vol. ii., p. 541. "He stated that for one important addition he was indebted to Mr. Curry, who pointed out in a manuscript poem, ascribed to *Caoltie*, one of Finn Mac Cumhaill's heroes, and which is certainly older than the year 1000, a portion in which the names of one hundred animals are recorded in a list of the ransom paid for the celebrated Finn Mac Cumhaill when a prisoner. Some of the names mentioned have not yet been translated. Dr. Ball observed on the value of such a collection as a means of throwing light on the names of places in Ireland, and urged the interest that naturalists of other countries felt in preserving the names by which animals were known in their native places, as a sufficient reason for desiring to preserve those of Ireland. He stated his intention of having the collection he had made properly digested and arranged by a competent person, and that he would then offer it to the Academy for publication."

Téighim ann do shúr na níath,
 Dus an bhfhúisceolainn mo thriath ;
 Da éissin go Temraigh thaile,
 Tucas liom coma Chormaic.

Tucasa leam in geilt garg,
 Is in gribh ingneach imard,
 Is dá fhiach Fheada an dá bheann ;
 Dí lachain Locha Saileann.

Dá shinnach a Sliabh Cuilinn
 Dá dhamh allaidh a Boirinn
 Dá ghéis a Fídh Gabrain guill
 Is dá chai Feadha fhordruim.

Dá thogmall ó Chailltib craebh,
 Do leath taebh dhá raen,
 Is dá dhobran iarsain,
 A carraic donnbhán Dobhair.

Dá fhailenn Thráighlí alle,
 Dí ruiligh a Purt Láirge

¹ *Geilt*.—According to O'Reilly, this word means, "a wild man or woman—one living in woods"—a maniac. It may, however, have been figuratively applied to some very fierce or untameable creature, either quadruped or bird, which inhabited the woods. But that the *simia*, or monkey tribe, were not likely to have at any time inhabited so cold a country, one would have seen, in the term, an exceedingly apt expression for "the wild man of the woods."

² *Grib*.—Swift, quick ; also applied to "the feathers on the feet of birds." The term occurs in Cormac's Glossary. But for the expressions—tall and with talons—employed in reference to this creature, it might be Anglicized into the Swift; but it is, in this poem, used in all probability to designate the Osprey, or sea-eagle. Cambrensis, in his "Topographia Hiberniæ," mentions among the birds of prey the eagle, osprey, hawk, falcon, and sparrow-hawk : and his observations on natural history and the habits and manners of animals are curious and interesting, and in many respects truthful and original. In some instances, however, he fell into the usual popular delusions of the day—as, for example, when describing the osprey in the chapter devoted to the consideration of birds of that description, he says it has one foot armed with talons wide open, and adapted to seizing its prey, while the other is of a more peaceful nature, and used for swimming.

³ *Lough Sheelin*.—A well-known lake on the borders of Cavan, Longford, and Meath. From the expression in the text, one is induced to think that two particular ducks were specified—such as, perhaps, the ducks of St. Colman, of Shanboth, enumerated among the wonders of Ireland in Nennius, which could not be boiled, "although all the woods of the earth were burnt under that pot." There are many similar legends related even at this day. See Lover's legend of the Trout in Cong Cave.

⁴ *Slieve Cuilinn*, or *Gullion*.—A mountain in the barony of Upper Orier, in the county of Armagh, which took its name from Cuileann, an artificer who lived here in the reign of Conchobar Mac Nessa, King of Ulster, and by whom the celebrated hero, Cú-chulainn, was fostered. This mountain, which is also mentioned in MacPherson's "Ossian," may be seen from the northern railway between Dundalk and Newry.

⁵ *Boirenn*, or *Burren*.—A wild district, in Thomond, county of Clare, in which herds of cattle were, very likely, common at the time referred to. In the "Leabhar na g-Ceart,"

I then went forth to search the lands,
 To see if I could redeem my chief,
 And soon returned to noble Tara
 With the ransom that Cormac required.

I brought with me the fierce *Geilt*¹
 And the tall *Grib*² (Osprey?) with talons,
 And the two Ravens of Fíd-dá-Beann,
 And the two Ducks of Loch Saileann.³

Two Foxes from Sliabh Cuilinn,⁴
 Two wild Oxen from Burren,⁵
 Two Swans from the dark wood of Gabhran,⁶
 And two Cuckoos from the wood of Fordrum.

Two *Toghmalls* from Fíd-h-Gaibhle,⁷
 Which is by the side of the two roads,
 And two Otters⁸ after them,
 From the brown white rock of Dobhar.⁹

Two Gulls¹⁰ from Tralee hither,
 Two *Ruilechs* from Port Lairge,¹¹

we read of "ten hundred oxen" from Boirinn being part of the tributes of Cashel to the kings of Erin. This locality is also mentioned in Hardiman's *Minstrelsy* as one of the "three impassable places in Ireland—Brefny, Burren, and Bearra." Achadhó, the "oxen field," is sometimes called "Campulus Bovis." See "Vita Sancti Kannichi," published and presented to the Kilkenny and South-east of Ireland Archæological Society by the late Marquis of Ormond.

⁶ *Gabhran*, now Gowran, in the county of Kilkenny.

⁷ *Fíd-h-Gaibhle*.—The branching wood of Feegle, in the parish of Clonsast, near Portarlinton, King's County. This was the celebrated wood of Leinster, sacred to St. Berchan, who states "that the wood derived its name from the River Gabhal, and that the river is called Gabhal from the Gabhal, or fork, which it forms at the junction of Cluain Sasta and Cluain Mor. The river is now called Fíd-h-Gaibhle, though the wood has disappeared."—*Leabhar na g-Ceart*, note by O'Donovan, p. 214. What the *Toghmall* was we cannot yet say; the meaning of the word is, "the slow bird." It was, besides, capable of domestication, or being made a pet of; thus, it is related that, when Cuchulain slung a stone at Queen Meave, he killed the *Toghmall* which was resting on her shoulder.

⁸ The *otter*, now called in Irish *madaidh wisce*, a water-dog, must have abounded in former times in Ireland, as we read of their skins being an article of commerce. In 1408 we find John, son of Dermot, charged with two otters' skins for his rent of Radon (Rathdown) for the same year; five otters' skins for the two years and a half preceding; and one hundred and sixty-two otters' skins for the arrears of this rent for many years then past, making a total of one hundred and sixty-nine otters' skins. This, which is the last entry accessible relative to the family of Gillamochoilmog, is recorded in an unpublished Pipe Roll of 10th Hen. IV. See the "History of Dublin," by J. T. Gilbert, Esq., 1859. Peltry formed a large portion of the exports of Ireland in very early times.

⁹ *Dobar*.—Probably Carrickdover, in the county of Wexford.

¹⁰ *Gulls*.—In Zeus and the Leyden Priscian *foilenn* glosses *alcedo*. Cf. Fr. *goëland*, in Welsh *gwylan*.

¹¹ *Port Lairge*.—Waterford—the Water Fiord.

Ceithre snoice a Brosnadh báin,
Dí fheadóic cairge dunáin.

Dí eachtaigh ó Echtge árd,
Dá smólach Leitre Lonngarg,
Dá dhrenn ó Dhún Aifte,
Dí chainche na Corraibthe.

Dí chuirr in Choruinn chladhaigh,
Dá errfhiach Mhoighe fabhuir,
Dá iolar Chairrge na clog
Dá sheabhaic Feadha Connach.

Dá Pheasán ó Loch Meilge
Dá chirc uisce a Loch Eirne
Dá chirc fraich mónad Mafa,
Dí ghairg díana Dubhlaaha.

Dá chrícharán a Chualainn
Dá mhiontán a Moigh Tualaing
Dá chaochán a Gleann Gaibhle
Dá ghealbainn na Sinainne.

¹³ *The River Brosna*.—In the King's County, a tributary of the Shannon. It rises to the south-west of Mullingar, and passes through Loch Belvedere, the ancient Loch Ennel. The term *snag* is translated by O'Reilly, woodpecker, and *snag-breac*, the magpie; but the former is not an Irish bird, and the latter is of comparatively recent introduction. Moreover, woodpeckers do not frequent rivers, but woods, whereas the heron is still called a snag, and the term is applied to a tall, ill-made man. Inis-Snag, near Thomastown, in the county of Kilkenny, is so named from this bird. In the west the crane is now styled in Irish *Cos crefóg*—foot in the mud—a very apposite expression, as most of our native terms are—as, for instance, the curlew is called *Cri-thane*, from the manner in which it walks, with its shoulders humped or elevated; the woodcock *Creadbar*, or *Cullugh Caech*, on account of the uncertain, blind manner in which it first flies out of cover.

¹³ *Dunan*.—Carrickdornan. The gray plover is still called the *feadog*, on account of its shrill whistle; and the lapwing, the *pillibeen*.

¹⁴ *Eachtach* is explained by O'Molloy "*copiosus in valore*." See note 15.

¹⁵ *Echtge—Slieve Aughty*, on the borders of Clare and Galway, to the south of the town of Loughrea. From it rises the Abhainn-da-Loilgheach—i. e., the river of the two milch cows, now the Owendalulagh. "The name of this stream is accounted for by a legend in the Dinneanchus, which states that Sliabh Echtghe, the mountain in which it rises, derived its name from Echtghe Uathach, the daughter of Ursothach, son of Tinde, one of the Tuatha de Danaan colony. She married Fergus Lusca Mac Rindi, who held this mountain in right of his office of cupbearer to the King of Olnegmacht. He had no stock, but she had; and she came to him with her cows, according to the law entitled *Slabhradh furiher fosadh*, and he gave up the mountain to her. On this occasion, according to the legend, two cows were brought there of remarkable lactiferousness, and equally fruitful; but on their removal hither, it turned out that one of them, which was placed to graze on the north side of the mountain, did not yield one-third as much milk as the one placed on the south side. This river forms the boundary between the fertile and barren regions of Sliabh Echtghe, alluded to in this legend."—*Annals of the Four Masters*, note by O'Donovan. From the foregoing legend it is not improbable that the Echtges of the poem were the peculiar cows or horned cattle of the vicinity.

Four *Snags* (Cranes?) from the River Brosna,¹²
Two *Feadógs* (Plovers) from the rock of Dunán.¹³

Two *Echtachs*¹⁴ from the lofty Echtge,¹⁵
Two Thrushes from Letter Longaric,
Two *Drenns*¹⁶ from Dun Aife,¹⁷
The two *Cainches* of Corraivte.

Two Herons from the hilly Corann,¹⁸
The two *Errfiachs* of Magh Fobhair,
The two Eagles of Carrick-na-Cloch,
Two Hawks from the wood of Caenach.

Two *Peasans* (Pheasants) from Loch Meilge,¹⁹
Two Water-Hens from Loch Eirne,
Two Heath-Hens (Grouse) from the bog of Mafa,²⁰
Two swift *Gairgs* (Divers) from Dubh Loch.

Two *Cricharáns* from Cualann,²¹
Two *Miontáns*²² from Magh Tualang,²³
Two *Caecháns* (Choughs) from Gleann Gaibhle,²⁴
Two Sparrows from the Shannon.

¹² *Drenns*.—Probably wrens; the *droleen* is still a word applied to diminutive persons.

¹³ *Dun Aife*.—Now Duneefy, in the county of Carlow.

¹⁴ *Corann*.—Now Keshcorann, in the county of Sligo.

¹⁵ *Loch Meilge*.—Now Lough Melvine, county of Fermanagh.

²⁰ *Mafa*.—Unknown. *Cearca-fraich*, the heath hen or grouse.

²¹ *Cualann*.—Powerscourt and the adjacent country, in the counties of Dublin and Wicklow, including the Dargle, the Glen of the Downs, and extending even to Delgany, all of which beautiful region was probably well wooded in the time of Cailte. We cannot at present decide with any degree of certainty as to what the *cricharans* were: possibly they were squirrels, which, it is said, formerly abounded in that vicinity. K'Eogh, however, calls the squirrel the *Ira-rua*. The Marten, or *Madaidh Crainn*, the tree-dog, which is still extant in the south-west, may have been meant by this term.

²² *Miontans*.—Titmice.

²³ *Magh Tualang*.—An ancient plain in Lower Ormond.

²⁴ *Gleann Gaibhle*.—Now Glengavlin, a wild valley in the barony of Tullyhaw, county of Cavan, in which the Shannon rises. See "Annals of Four Masters," A. D. 1390. It is a deep, circular hole, surrounded by rich alluvial soil, and called by the country people "The Shannon Pot." A very small stream proceeds from it, which, descending through the hills, soon widens into a considerable river that enters Lough Allen, near Dourais; passes obliquely through the lake, and leaves it at the Bridge of Ballintra, where it receives the Arigna River. Standing upon the side of Slieve An-Ierin mountain, or on any of the neighbouring elevations, one can, in particular states of the water and atmosphere, trace the stream of the Shannon passing through Loch Allen. Giraldus mentions a curious and what at first seems an incredible circumstance regarding this river—viz., that from its source it flows two ways, north and south—to Limerick on the one hand, and through Lough Erne to Ballyshannon on the other. If, however, one stands on the slight elevation which separates the Pot of the Shannon from the slopes above Swanlinbar, all the waters to the north of the ridge may be seen running to form the Erne water, and all those to the south-west passing towards the Shannon, so that, after all, the old Welshman was not so far astray as has been supposed.

Dá pheata odhra ó Ath Cliath,
 Dí onchoin ó Chrotaibh Cliach,
 Dá chabóice ó Dhruim in Daimh
 Dí riabóice ó Leathan-mhaigh.

Dá choinín a Dhúmha duinn,
 Dí mhuc nallta a Cnoghbha chuirr,
 Dá pheatán Creite ruaidhe,
 Dá thorc Temrach taebhuaine.

Dá choluim as an Ceas Chuirr,
 Dá lon a leitribh Finnchuill
 Dá dhuibhén thrágha Dhábhain
 Dí earbóice Luachra Deághaidh.

Dá fhainil a Sidh mBuidhe,
 Dá iaroinn a Fidh Luadhraidhe,
 Dí ghéseachtaigh on Maigh moill,
 Dí spideóice caemh a Cnámheoill.

Dá fhereidhin Atha Lóich
 Dí uisín a Monaidh móir
 Dí ialltain a huaimh Chnoghbha
 Dá phorc a crích Ollarbha.

Dá chreabhar ón cCoillidh ruaidh,
 Dá fhaidreclinn Léana huair,
 Dá bhruacharán Shléibhe dá én,
 Dá chadhan Thurlaig Bhruidhéil.

Dá naescain a Dún Daighre,
 Dí bhuideóice a bhruach Bairne,
 Dí spireóice sonna a Sliabh cleath
 Dá lochaidh liatha a Luimneach.

²⁵ *Ath Cliath*.—Now Dublin; in the bay and river of which, especially on the strand of Moynalty, cormorants were probably common in former times. *Odharog* is a scrat, or young cormorant.

²⁶ *Onchus*.—*Loch nan onchon*, the lake of the otters. See "The Irish Nennius," p.198.

²⁷ *Crotta Cliach*.—The Galtee Mountains, county of Tipperary. In the dictionaries *Ormchre* is the term for a leopard, but that animal did not exist in Ireland. Mr. Curry believes that it was the old term for a boar-hound.

²⁸ *Riabhoges*.—The little bird which is the usual attendant of the cuckoo, and called "the cuckoo's waiting-maid," is so styled. This is still a living word in the west.

²⁹ *Cnoghbha*.—The well-known mound of Knowth, on the Boyne, near Newgrange.

³⁰ *Ceis Corann*.—Kesh-corrán, county of Sligo.

³¹ *Luachair Deaghaidh*.—Slieve Lougher, in Kerry.

³² *Cnamh Choill*.—Now Cneamh Choill, a townland close to the town of Tipperary. It is curious to find the interest attaching to the robin extending so far back as the date of this poem.

³³ *Ath Loich*.—At Dunlow, near Killarney, Kerry. The *Fereidhin* is mentioned in the account of the death of Dermot Mac Cerchail, monarch of Erin, in A. D. 690.

- Two *Peata-Odhra*s (Cormorants) from Ath Cliath,²⁵
 Two *Onchus*²⁶ from Crotta Cliach,²⁷
 Two *Caboges* (Jackdaws) from Druim Damh,
 Two *Riabhoges*²⁸ (bog Larks) from Leathan Mhaigh.
- Two Rabbits from Dumho Duinn,
 Two Wild Hogs from circular Cnoghbha,²⁹
 Two *Peatans* (Leverets?) from Great Roe,
 Two Wild Boars from green-sided Tara.
- Two Pigeons out of Ceis Corann,³⁰
 Two *Lons* (Blackbirds) out of Leitir Finnehoill,
 Two Black-birds from the strand of Dabhan,
 Two *Earbógs* (Roebucks) from Luachair Deaghaidh.³¹
- Two *Faenels* (Swallows) out of Sidh Buidhe,
 Two *Iaronns* from the wood of Luadraidh,
 Two *Geisechtachs* (Screamers, Peacocks) from Magh Mall,
 Two charming Robins from *Cnamh Choill*.³²
- Two *Fereidhins* from Ath Loich,³³
 Two *Uisins* (Fawns) from Moin mor,
 Two *Ialltans* (Bats) out of the cave of Cnoghbha,³⁴
 Two Pigs from the lands of *Ollarbha*.³⁵
- Two Woodcocks from Coillruadh,
 Two *Faidhirclis* (Crows) from Lenn Uar,³⁶
 Two *Bruacharans* from *Sliabh-da-Ean*,³⁷
 Two *Cadháns*³⁸ (Barnacles) from Turloch Bruigheoil
- Two *Naescans* (Snipes?) from Dun Daighre,³⁹
 Two *Buidheógs* (Yellow-hammers) from the brink of Bairne,
 Two *Spireógs* (Sparrowhawks?) from *Sliabh Cleath*,⁴⁰
 Two gray Mice from Luimneach (Limerick).

³⁴ *Cnogbha*.—From this it would appear that the cave under the mound of Knowth was open at the time of Cormac Mac Art; probably it had not been closed up after the rifling by the Danes. The modern Irish name for the bat is *Ialtog* or *Sciathan-leathair*, leather-wing.

³⁵ *Ollarbha*.—Now Larne Water, a river in the county of Antrim.

³⁶ *Lenn Uar*.—The vale of the Uar, near Elphin, county of Roscommon.

³⁷ *Sliabh-da-Ean*. Slieve-Daen, in the county of Sligo.

³⁸ *Cadháns*.—This is still a living word, and is applied to the barnacle, which migrates to this country from Shetland about the 15th October, which was formerly so abundant at Wexford, Tralee, and along the coast of Kerry. The true barnacle, or *Anas erythropus*, is seldom seen at either of these places; but the brent goose, or *Anas bernicla*, is still common. The locality here mentioned, Turloch Bruigheoil, which is very celebrated in Irish history, is the small lake of Bree-oile, in the barony of Athlone, county of Roscommon. Turlochs, or collections of water which become nearly dry in summer, abounded in that county—such as the Turloch of Carrokeel, the Turloch of Castleplunket, and that of Turlochmore, &c.

³⁹ *Dun Daighre*.—Now Duniiry, in the S. E. of the Co. Galway, a seat of the MacEgans.

⁴⁰ *Sliabh Cleath*.—Now Slieve-Glah, a hill near the town of Cavan. The term

Dá thraghna a srothaibh Sinna,
 Dí ghlaiseóice a bhruachaibh Birra,
 Dá chrotach a chuan nGailbhe,
 Dí screchóice a Mhuirtheimhne.

Dí gheilt glinne Ghleanna Smóil
 Dí bhaidbh Atha Mogha móir,
 Dá onchoinn luatha a Loch Con,
 Dí chait a huaimh Chruachon.

Dá chadhla a Sith Gabhrain gil,
 Di mhuc do mhucaibh Mic Lir,
 Reithe is caera chorra chas,
 Do radas liom ó Aonghas.

Tucas liom each agus láir
 Do ghroigh mhaisigh Mhanannáin,
 Tarbh is bán bhó a Druim Cain
 Fuaras féin ó Mhuirn Mhunchain.

Spireog is still a living word in the very locality here referred to, and signifies the sparrow-hawk. Giraldus Cambrensis has a chapter upon birds in his "Topographia Hibernia," which, although abounding in the absurdities of writers upon Natural History at that period, and presenting in an especial manner the peculiar prejudices of this writer, is, nevertheless, not devoid of interest. "This kingdom produces," he says, "in greater abundance than other countries, hawks, falcons, and ospreys, to which nature has given, for the pleasure of the nobles (in hawking), courageous breasts, crooked and sharp beaks, and feet armed with talons." He also remarks upon the circumstance of the nests of birds of prey not increasing, although the animals themselves reproduce annually. "The number of eagles seen here is," he says, "no less than that of kites seen in other countries." Cranes, he says, collected in his time in such numbers, that one hundred might frequently be seen together. This, probably, refers to the true crane then common in Ireland, and now replaced by the heron. As a specimen of the credulity of the period, may be mentioned the following notice of the crane from this quaint writer:—"These birds keep watch by night, each one a night in its turn, for the common safety, resting on one foot, and having the other foot under its wing, with a stone in it, that by its fall, if asleep, perchance, crept on it, the bird being roused, may immediately return to its office of watch-holding."

⁴¹ *Birra*.—Now Birr, or Parsonstown, a large town in the King's County, adjoining the county of Tipperary.

⁴² *Muirtheimhne*.—A level plain along the sea, in the county of Louth, comprising Dundalk, &c.

⁴³ *Glenn-a-Smóil*.—The Glen of the Thrush, beyond Rathfarnham, in the county of Dublin, near the source of the River Dodder. For *Geilt Glinne*, the maniac of the woods, see *Geilt*, p. 185.

⁴⁴ *Badhbh*, the gray or scald crow.

⁴⁵ *Ath Mogha*.—Now Ballymoe, upon the River Suck, county of Galway, on the borders of Roscommon, near Castlereagh. There are many legends relating to this glen.

⁴⁶ *Loch Con*.—One of the great chain of the Mayo lakes, stretching between Galway Bay and Killala, still celebrated as a locality for the otter.

⁴⁷ *Cruachain*.—The cave of Rathcroghan, now Rawcroghan, the site of the ancient palace of the Kings of Connaught, near Castlereagh, county of Roscommon. The stone passage here alluded to still exists, and is the scene of many legends, both ancient and modern. I remember, when a boy, being warned by one of the old people against enter-

Two Cornerakes from the banks of Shannon,
 Two *Glaiseógs* (Wagtails) from the brinks of Birra,⁴¹
 Two *Crotachs* (Curlews) from the harbour of Galway,
 Two *Sgreachógs* (Screech-Owls or Jays?) from Muirtheimhne.⁴²

Two *Geilt Glinnes* from Glenn-a-Smoil,⁴³
 Two *Badhbhs*⁴⁴ from great Ath Mogha,⁴⁵
 Two fleet *Onchus* (Otters) from Loch Con,⁴⁶
 Two Cats out of the cave of Cruachain.⁴⁷

Two *Cadhlas* (Goats) from Sith Gabhran,
 Two Pigs of the Pigs of Mac Lir,⁴⁸
 A Ram and Ewe both round and red,
 I brought with me from Aengus.⁴⁹

I brought with me a Stallion and a Mare,
 From the beautiful stud of Manannan,
 A Bull and a white Cow from Druim Cain,⁵⁰
 Which were presented to myself by Muirn Munchain.⁵¹

ing it, because it was said to have been inhabited by wild cats, and other venomous creatures of that description.

⁴⁸ *Mac Lir*.—Manannan Mac Lir, the Neptune, or sea-god, of the old Tuatha dé Danann. See an account of this personage in the biography of Sir Robert M'Clure, the discoverer of the north-west passage, in the "Dublin University Magazine," for March, 1854, p. 368.

⁴⁹ *Aengus*.—The great Tuatha dé Danann magician of Brugh na Boinne. This name is sometimes applied to Angus in Scotland, where Caitte may have sojourned before he arrived in Ireland.—J. O'D.

⁵⁰ *Druim Cain*.—A hill near Tara, county Meath; but there are many places of the name in Ireland.

⁵¹ *Muirn Munchain*.—The mother of Finn Mac Cumhail.

NOTE I.—A friend has kindly furnished me with the following Irish names of animals, extracted from the oldest copy of Cormac's Glossary: *ag allaid*, cervus, a deer; *bairene*, *catt boinenn*, a she cat; *luathither lochaid fri forgarmain*, "swifter than a cat after a mouse;" *banb*, *mát*, *muc*, a pig; *orc muice*, *cumlachtaid*, a sucking pig; *nér*, *torc allaid*, a wild boar; *triath*, *torc*, a boar; *brocc*, a badger; *capall*, *ech*, *pell*, *fell*, a horse; *gabur* or *gobur*, a steed; *tarb*, a bull; *bó*, *ferb*, a cow; *lóig bó*, a calf; *fíthal*, a calf (Latin *vítulus*); *gámnach*, *clithar-shét*, *rig-shét*, *sét gabla*, *colpach*, *samaisc*, *dam timchill arathair*, *laulgach*, different kinds of kine; *cúfodoirne*, *dobarchú*, an otter; *glademain*, *maic thire*, wolves; *oss allaid*, *seg*, a wild deer (*oss* seems cognate with *ox*); *ness*, a weasel; *óí* (Latin, *ovis*; English, *ewe*), *cáira*, a sheep; *óisc*, a dry ewe; *cú*, a dog (genitive *con* = *canis*, *houn-d*); *banchú*, a bitch; *mílchú*, a greyhound; *oircne*, a lapdog; *cuilén*, a pup (*cuaine*, a litter of pups); *patu*, a hare; *rob*, *rop*, *beist* (bestia), *anmann*, names for animals generally; *fiach*, *bran*, a raven; *crufeichta*, *bádb*, or *bódb*, a carrion crow; *corr*, a crane; *ela*, *gall*, a swan; *géd*, a goose; *seig*, a hawk; *coilech lachenn*, a mallard? *essine*, a featherless bird; *én*, a bird; *cupar*, an old bird; *elta*, a flock of birds; *iasc*, a fish; *leithech*, a kind of flat fish; *orc*, *bratan*, a salmon; *parrn*, *bloach mara*, a whale; *cailech*, a cock; *legam*, a moth?

NOTE II.—*Faidhircli* (*suprà*, p. 188) may be identified with *adircliu* (gl. cornix) Zeuss, "Grammatica Celtica," p. 726. The *f* is merely prosthetic.

Silvester Gerald Barry, the learned chaplain of John, King of England, and popularly known by the name of "Giraldus Cambrensis," owing to the circumstance of his Welsh origin, has enumerated in his "Topographia Hiberniæ" the different animals common to this country; but as he did not give the Irish names, we find some difficulty in using his description as a commentary upon the foregoing poem. The Rev. John K'Eogh, author of the "Botanologia Universalis Hiberniæ," also published, in 1739, "Zoologia Medicalis Hiberniæ," in which he has given in the English character, and as they were pronounced by him, the Irish names of the "birds, beasts, fishes, reptiles, and insects which are commonly known and propagated in this kingdom;" but it is extremely defective as a list of animals, and far below the state of biological knowledge which then existed—being a mere enumeration of the various supposed cures and superstitious virtues attributed by old women, and old writers also, to the different parts and products of animals.

Among the animals of extinct Irish Fauna which possibly existed contemporaneously with man, but which have no representatives in the present day, was the bear, in Irish *Mathghamhain* (probably *Ursus Arctos*, or the fen bear), unmistakable evidence thereof having been already brought before the Academy by the late Dr. Ball,* and three casts of such bears' crania being now, with the other unmanufactured animal remains, in our Museum. Of these, it is said that two were found in a cut-away bog, about seven feet from the original surface, near Ballymahon, on the borders of Longford and Westmeath counties; but the hearsay or traditional evidence obtained by collectors of specimens, either of natural history or antiquity, as to the precise positions or strata in which such articles have been found by the peasantry, must be received with caution.

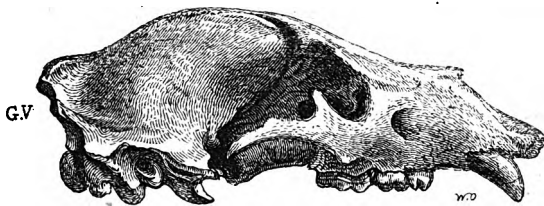


Fig. 1.

The fine specimen of cranium here figured, one-sixth the natural size, is $13\frac{1}{4}$ inches from the alveolar process to the end of the occipital spine, and was probably that of the European *Ursus*, or black bear. Dr. Carte considers it that of the Pyrenean species. It was found in the townland of Kiltrathmurry, barony of Carbury, and county of Kildare, in cutting the new channel for the River Boyne, above Leinster Bridge,

* For notices of the Irish Bear, see "Proceedings," vol. iv., p. 416.

“about four feet under the surface,” but in what description of soil is not mentioned. “The place where it was discovered had been a complete marsh, and scarcely accessible in summer. A large quantity of bones were found with the skull, which were broken up by the men” employed upon the work. It was presented to the Academy by the Board of Works. See “Proceedings,” vol. v., Appendix, p. 54. Besides these two, we had in very early times the great cave bear, or *Ursus spelæus*.*

When the bear became extinct in Ireland we have no precise means of determining. Bede says the only ravenous animals in Ireland were the wolf and fox. St. Donatus, who died in A.D. 840, states, that in his time it was not a native; and Gerald Barry (Cambrensis) does not enumerate it among the beasts known in Ireland at the period of his visit, in the twelfth century. In addition to the circumstance of the heads of several bears having been discovered, the fact of there being an Irish name for the animal in one of our old glossaries in the Library of Trinity College (M.S., H. 2, 13), strengthens the idea that it existed here contemporaneously with man. The late William Thompson—decidedly our first Irish naturalist—wrote thus, in his Report on the Fauna of Ireland, to the British Association, in 1840:—“I am not aware of any written evidence tending to show that the bear was ever indigenous in Ireland, but a tradition exists of its having been so; and it is associated with the wolf, as a native animal, in the stories handed down through several generations to the present time.” History is, however, silent respecting it. According to Pennant, the brown bear infested the mountainous parts of Scotland up to the year 1057; and Professor Owen, in his “History of British Fossil Mammals and Birds,” says, the most recent formations in England contain “remains which can scarcely be regarded as fossil, and which, if not perfectly identical with, indicate only a variety of the same species which is still common in many parts of the European continent.”

The wolf, *Canis lupus* (the *Cú-allaidh*, or wild hound; and sometimes called *Mac-Tíre*, *filius terræ*, the son of the land), is so frequently referred to in modern Irish history, and existed so recently (up to 1710), that it is unnecessary to enter upon its description at any length; moreover, its bones and crania are so identical with those of the dog of a similar size, that it is scarcely possible to distinguish the one from the other; even the observant Cuvier acknowledges that the difference between two dogs or two wolves of the same size were often more marked than between dog and wolf.† In the vast collection of animal remains found on the site of the crannoge at Lagore (or *Loch-Gabhar*, the lake of the steeds), near Dunshaughlin, county of Meath, described at page 222 of the “Catalogue of Antiquities,” were found some heads of canine animals, either wolf or hound, of the largest of which the accom-

* See Journal of the Royal Dublin Society, No. 15, p. 352.

† See the account of the last wolf in Connaught, p. 143 of the Catalogue of Antiquities, R. I. A. In the Brehon Laws, printed by Vallancey, pet wolves, pet hawks, pet deer, pet hogs, are mentioned.

panying cuts, from No. 1, give a faithful representation. It is nearly 11 in. in length, measured from the end of the occipital ridge to the alveolar process at the roots of the upper incisors, and is principally characterized by the magnitude of the crest. The profile view of the outline and the prolonged muzzle rather tends to the belief of its having belonged to the true Irish wolf-dog, or large rough-coated hound, of an iron-gray colour, of former times, examples of which may still be seen in Scotland and the Hebrides. The Irish hound (*Canis Hibernicus*), or *Milchú*, so loudly extolled by our writers, is now nearly, if not altogether, extinct in this country.



Fig. 3.



Fig. 2.

There are five dogs' heads in the collection. Nos. 1, 2, and 3 are each about the same size, viz., 11 in.,

measured round the surface of the bone, as stated above. No. 3 had during life

disease of the bone between the orbits, possibly the result of accident. Nos. 4 and 5 are small heads of the same variety, possibly those of females. They measure about 9 inches over the same line as in the foregoing. In No. 5 the occipital crest is proportionably not so large. The lower jaws are wanting in all. These five crania were found in the Dunshaughlin crannoge, and were presented by me in 1842.

Among the remaining carnivora still existing, and likely to have occupied the attention of man, were the fox (*Vulpes vulgaris*), the *Sinnach*, *nech is sine do conaib*, the longest-lived of dogs,* or *Madaidh ruadh*, the red dog; also the badger (*Meles vulgaris*, or *M. taxus*), and in the native tongue *Brocc*; † and the otter (*Lutra vulgaris*), the *Madaidh uisce*, or *Dobharchú*, the water-dog, or water-hound. In this list might also with propriety be included the seal (*Phoca vitulina*, and *P. halichoerus*), ‡ called in Irish *Rón*. This latter gives names to many localities, such as *Rinn Rón*, the point or promontory of the seal; *Carrig na Rón*, the seal's rock, now called "The Beeves," in the mouth of the Shannon, &c. &c.

The marten (*Martinus abietum*) formerly abounded in our woods, and a few still exist in some localities where portions of the ancient forests remain, among which I may specify Ballykyne, near Cong, in the county of Mayo, and Kylemore, Connemara, county of Galway. It affords an ornamental fur, not without its value even at the present day. § Like

* See the copy of Cormac's Glossary, in H. 2. 16, col. 82, in Library T. C. D.

† The badger is called *broc* in old Saxon also, and *barsuk* in the Russian. See "The Tale of Deirdre," where this Irish beauty talks of feeding on badger's flesh.—Transactions of the Gaelic Society, vol. i.

‡ See Dr. Ball's Paper in Trans., R. I. A., vol. xviii.

§ Peter Lombard enumerates martens' skins among the exports from Ireland in the sixteenth century. See "Anthologia Hibernica," vol. i. p. 121; also p. 45, of this paper.

all the small carnivora, it was called in the native tongue, a dog, *Mad-aidh crainn*, "the tree dog," or *cat crainn*, "the tree cat." The stoat and the weasel (*mustela erminea*), called in Irish *Planaid* or *Easóg*, still remain, although under the game and vermin laws they are yearly decreasing.*

Of the cervine race Ireland boasts the most magnificent example, in either a fossil or recent state, which the world has yet produced—the gigantic Irish deer or fossil elk (*Cervus megaceros Hibernicus*); but whether that noble animal, which formerly traversed our plains and feeding pastures, coexisted with man, is questionable; most naturalists affirming that it did not, while the opinion of antiquarians rather tends the other way. The argument adopted by the former is, that the strata of calcareous tufa and shell marl in which the bones are almost invariably found are pre-Adamite, or were formed anterior to man's occupation of this island. But if the discoveries lately said to be made in the gravel drifts at Abbeville in France should prove true, this theory respecting our Irish fossil deer is untenable; moreover, these investigations show either that man is much older, or several fossils much younger than is usually supposed. It is, however, remarkable that as yet we have not discovered any Irish name for it. If the animal was here a contemporary of man, it certainly had become extinct long before the Irish had a knowledge of letters. In the collection of crude animal remains belonging to the Academy will be found the crania of no less than sixteen specimens of our greatest cervine animal, besides many detached fragments of skeletons. They are said by the district engineers to the Board of Works to have been found in the counties of Fermanagh, Cavan, Leitrim, Monaghan, and Roscommon; but under what precise circumstances discovered, and whether in peat, clay, or marl, has been stated in only a few instances. Others were found in the Shannon, but where, was not specified. Most of them were presented by the Shannon Commissioners or the Board of Works.

The following is a catalogue of these remains now belonging to the Academy, amounting altogether to upwards of 50 specimens, complete or fragmentary.

No. 1. A head and a portion of the horns in tolerable preservation, but wanting several of the tines of the latter; brow antlers deficient. The label attached to it states that "it was found six feet below the land surface, imbedded in blue marl, eighteen inches beneath the overlying peat at a quick turn of the River Erne, below Cloggy Bridge, in the county of Cavan; in the excavation of the channel made under the direction of the Drainage Department of the Board of Works, December, 1851."

No. 2. A head and part of the horns, the latter tolerably perfect, but the former wanting a portion of the superior maxillary bone on the right side; one brow antler remaining. Breadth of the palm only nine

* *Es* is the ancient word, of which *easóg* is a derivative. See O'Flaherty's *Iar Connaught*, p. 10.

inches, this was apparently a young animal, and "found in the Shannon," but where is not specified. There was no label attached.

No. 3. A head and imperfect horns; with the label, "No. 10," and appearing to have been that presented by the Board of Works, under the following circumstances:—"Found in the bed of the River Dee, between Nobler and Whitewood, county of Meath" (Proceedings, vol. vi., p. 180). This specimen appears more recent than any other in the collection.

No. 4. A complete head, but horns imperfect, brow antlers wanting; in the left horn-blade there is an oblong indentation, about $1\frac{1}{2}$ inch in extent, and $\frac{1}{4}$ broad, into which might be fitted a long narrow bronze celt, similar to some in the Museum. Both head and antlers are covered with aquatic lichen. It is marked "No. 25," and was probably presented by the Drainage Commissioners.

No. 5. The head and horn-beams of what appears to be the remains of one of the oldest animals of the Irish fossil elk yet recorded. The superior maxillary bone is imperfect; the infra-orbital apertures are very oblique, only $2\frac{1}{2}$ inches beneath the burr or crown, and the approaching edges of the burr are but three inches asunder; while in No. 3 that space



Fig. 4.

is $4\frac{3}{4}$ inches wide, and in No. 9 it is still larger, so that these distances may, with other circumstances, be taken as indications of age. The breadth between the orbits is $9\frac{1}{2}$ inches. The right palm only remains, and is deeply grooved for the large arterial network which ramified on its surface. The circumference of the basal ridge or burr is 15 inches,

being the largest yet recorded, except that Irish specimen at Knowle Manor House, in Kent, mentioned by Professor Owen. The brow antlers, although the largest at their bases, of any yet described, are unfortunately imperfect towards their extremities; where they spring from the base of the beam, they are deeply grooved, and the anterior and outer surfaces of the horn-beam itself also present deep indentations, which spread upwards and outwards along its edge into the antler; the teeth are worn to the crown, and several of the alveoli have been absorbed. Taking all the circumstances of this very old head, figured on the opposite page, into consideration, I think the approach of the pedestals and horn crowns to each other, the obliquity and the distance of the orbital holes from the base of the horns, and especially the grooving of the horn-beam upwards and outwards from the brow antler, may be taken as indications of extreme age in this animal. This specimen, as also No. 10, was presented by Algernon Preston, Esq., who has lately written to me to say "they were found at Chapelizod, near this city; but I am unable to give the particulars."

No. 6. A good head, but wanting the horn altogether on the right, and partially so on the left side; very dark in colour. Label: "Found in the townland of Kilnagross, parish of Kiltoghert, barony and county of Leitrim, district of Eslin: Thomas J. Mulvany, district engineer; John Coghlan, resident engineer." Presented by the Drainage Commissioners.

No. 7. A head of rather a large size; apparently of an old animal, although the teeth are very little worn; fragments of both horn stems remaining. The bone is much affected by either weather or water, and the interstices of the skull are filled with clay. Marked with the name "Donahoe;" it probably came from one of the Strokestown Loughs.

No. 8. A very perfect, large head, measuring, from the occipital crest at top to the end of the mouth bone, 22 inches. The head is rather narrower than usual; a portion of each stem and both brow antlers are perfect. The palm of the brow antler is seven inches across; there is some irregularity in the crown of the left beam, as if from exuberant growth; a small tit-like projection, apparently the commencement of a third horn, springs from the bone beneath the base of the beam on this side. The colour of the whole is very dark, but both the bone and horn are in a fine state of preservation; it is heavier than any of the other specimens: and was "found in the parish of Cloone, barony of Mohill, county of Leitrim. This head was in the possession of a labourer, who said he found it in the river, under the village of Cloone. As he could not point out the precise locality where it was found, it could not be ascertained if there were any other bones." Presented by the Board of Works. (Proceedings, Appendix, vol. v., p. 60.)

No. 9. A fragmentary head and beam of left horn, apparently belonging to a young animal. The bone is very smooth. Label, "found eleven feet beneath the land surface, embedded in plastic blue clay, below the bed of the River Erne near Cloggy Bridge, in the county of Cavan, in the excavation of the channel, in December, 1852." Presented by the Board of Works.

No. 10. A fragment of the upper portion of the head and left horn, apparently very much affected by either weather or water, the burr being worn off on both sides. Presented, along with No. 5, by Mr. Algernon Preston.

No. 11. A fragment of a small head and both horn-beams, but wanting the palms and brow antlers. This specimen presents some peculiarities differing slightly from all the others. The crowns on which the horns are set are very much longer and narrower—even compared with their size—than in any other specimen in the Academy. The circumference of the beam a little above the brow antler is but $5\frac{1}{4}$ inches. The antlers appear to rise higher, and not to spread so wide laterally as in all the others. It was presented by the Shannon Commissioners, and was “found in excavations in the lock pit at the new works, Rooskey, in bog, ten feet beneath the surface of ground, 11th March, 1847.” The infra-orbital holes are $3\frac{1}{2}$ inches from the horn-crowns, and in most of the other heads scarcely more than $2\frac{1}{2}$ inches. The older the animal, the smaller and more oblique do these holes appear to become (see Nos. 1 and 5). This remarkable specimen, as shown in the subjoined woodcut, is either a different variety, a very young animal, or a degenerate race; and of

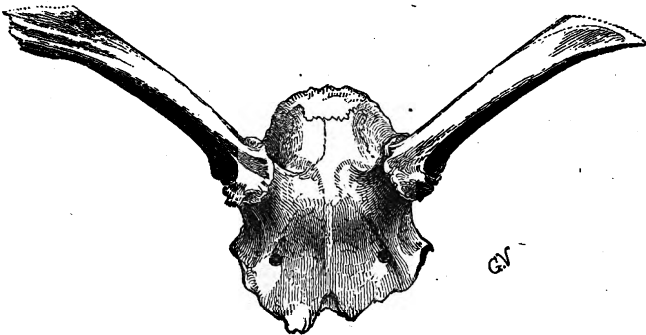


Fig. 5.

these three suggestions the first seems the most probable; and the fact of finding it in a bog, above either the blue clay or marl, shows that it existed in times more recent than the foregoing and larger animals.

No. 12. A small fragment of the frontal bone, with a portion of the left horn and brow antler, of a large and apparently old animal, found with several other bones of *C. megaceros*, “in a solid bank, 17 feet under the surface of sandy clay and peat,” in the townland of Bumlin, Strokes-town drainage district, county of Roscommon. Presented by the Board of Works.

No. 13. The beam of a right horn, with a small portion of the skull attached; very heavy and dark-coloured, as if by immersion in bog. No number or label attached.

No. 14. The upper portion of the head and horn-beam of a small animal, and somewhat resembling No. 11. It has been much acted on by water; was found in the Shannon, at Drumsna Bridge, between the counties of Leitrim and Roscommon, on the 19th June, 1846, and was presented by the Shannon Commissioners.

No. 15. A shed horn, with the brow antler attached; "found in digging at Lisduff, county Cavan," in 1848, and presented by Lord Farnham.

No. 16. The beam and a portion of the palm of a left horn. No register, number, or label.

No. 17. A portion of the skull and the beam and palm of the left horn of a full-grown animal. Presented to the Academy by W. R. Wilde, Esq., on the 23rd May, 1859.

No. 18. A large horn-blade. No register, but evidently not belonging to any of the foregoing.

No. 19. A large piece of a horn palm, marked "No. 4, found in the present main channel [of the river] four feet below the original bottom, and about midway between Ballyconnell Mill and Island, in the Ballinamore and Ballyconnell districts."

No. 20. A large piece of horn-palm, with one side removed, showing the beautiful cancelli of the bone.

21. A large piece of horn-palm broken off at the expansion of the beam.

No. 22. Fragments of a beam and palm.

No. 23. A brow antler covered with marl, and filled internally with crystals of protophosphate of iron; a substance discovered and described in these bones, by Dr. Aldridge, some years ago.

No. 24. The fragment of a beam and palm.

No. 25. Two fragments; pieces of a palm.

No. 26. A large tine, apparently found in clay, and filled with crystals, like No. 23.

Nos. 27, 28, 29, 30, 31, 32, 33, and 34, are fragments of horns; so far as can be judged from their present condition, not belonging to any of the foregoing specimens.

No. 35. An inferior maxilla, perfect; also fragments of seven other lower jaws, four right and three left; numbered from 36 to 42. The bony structure of the teeth and the edges of the alveoli are completely filled with the blue crystals of iron already alluded to.

Nos. 43 to 47 are vertebræ, evidently of different animals. No. 47 is a sacrum, with a portion of the coccyx. No. 48, two scapulæ, found with Nos. 15 and 17. No. 49, four ribs. No. 50, two pelvic bones, much discoloured, and the interstices filled with blue matter. No. 51 includes 19 bones, of which 6 appear to have belonged to the same animal, viz., 2 femora, 2 tibiæ, and 2 tarsal bones, and all marked with the same deep blue colour as the pelvic bones, No. 51, to which they appear to belong. These bones are all very light and friable, and the blue colouring matter has permeated their interior to a considerable distance. It does not here exist in the shape of crystals, like that in the horn-palms of No. 23, and in some of the teeth. No. 52 is a femur, marked

"No. 10," and was found in the Derryholmes River during the excavations for underpinning the bridge. Besides the foregoing, there are two portions of iliac crests, also stained blue, and apparently belonging to the same animal as No. 51. No. 53 is a portion of a humerus. Presented by the Drainage Commissioners. (See "Proceedings," vol. v., Appendix, p. 62.)

The whole collection of heads, horns, perfect bones, and fragments of *C. megaceros* at present exhibited in the Academy amounts to seventy-two.

In the foregoing list, the majority and the most important specimens have been identified; but some others referred to in the Proceedings and Presentation Book cannot now with accuracy be determined.

The remains of the reindeer (*Cervus tarandus*), or caraboe, have been discovered in the Dublin mountains, and may be seen in the Museum of the Royal Dublin Society; in the Mansion House there is a very fine specimen, said to have been found in Ireland; and some bones of that animal were lately found in Shandon cave.*

The horn of *Cervus alces*, or the true elk, was found in the county of Tyrone, and described by Thompson in 1837.† The circumstance of the remains of these two animals, the reindeer and the elk, being found in Ireland, affords the philosopher food for speculation as to the probable state of our climate when they existed here.

The red deer (*Cervus elephas*), called in the native tongue *Fíadh Ruadh*, still roams through its native woods of Kerry, and was known in parts of Galway, especially among the Twelve Pins, and in Erris, in the county of Mayo, within the memory of the last generation. This, above all others, was the wild animal most noted in early Irish history, and the antlers of which were apparently most frequently used in the arts in former times. We possess a large collection of red deers' horns, and several perfect specimens are still attached to the crania. Of these, the number of tines on each antler varies from 6 to 10; the latter is shown in the accompanying magnificent set of horns, No. 3, which were found about 7 feet under the surface, in deepening the bed of the river between the townlands of Ballymore and Ballinacfad, county of Roscommon. Fig. 6, No. 2, had originally seven tines on the right, and has now eight on the left side. It was found at Ballinderry, county of Westmeath, and was presented by Barkley Clibborn, Esq. With this exception, all the remains of red deer in the Academy's collection were procured during the drainage operations in different parts of Ireland, and were presented either by the Shannon Commissioners or the Board of Works.

Other animals of the cervine species, the fallow deer (*Cervus dama*), and the roebuck, may have also existed in early times, probably introduced; and afforded to our ancestors food, clothing, and amusement, although not known in the time of Bede, and undescribed by Gerald Barry, and not found, like the remains of red deer, in our bogs. But in

* See Professor Oldham's paper on this subject in the "Journal of the Geological Society," for 1847, and Dr. Carte's communication in the "Journal of the Royal Dublin Society," No. XV.

† See Proceedings of the London Zoological Society for 1837, p. 53.

a very old translation of the scriptural "Book of Kings," contained in the "Leabhar Breac," we find the fallow deer called *Bugul*; the hart, *Fiadh-oige*; and the roebuck, *Gabur*; which latter, however, also signifies a goat.

Gerald Barry, in his "Topographia Hiberniæ," when speaking of the exceeding fatness of our stags, adds:—"By so much as they are smaller in the size of their bodies, by so much are they the more surprisingly set off by their heads and horns." But this evidently refers to the red deer. Besides the heads of red deer presented by the Board of Public Works to the Academy, great quantities of the remains both of deer and oxen have from time to time been discovered upon the borders of our inland lakes, as their waters have been lowered, either naturally or artificially, during the last few years; and their accumulation in these localities receives an elucidation from the following tales, extracted from the "Book of Lismore," and furnished me by Mr. Curry.

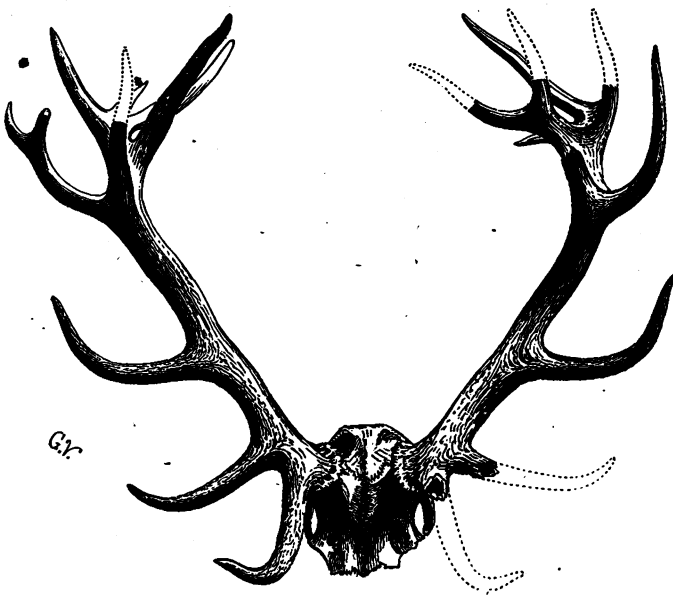


Fig. 6.

"Bran Mac Derg, son of the King of Munster, hearing that Cailte, one of Finn Mac Cumhaill's champions, to whom allusion has already been made, was still living, at a great age, as related by the Finian writers, repaired to him to learn the best method of hunting the deer with which Finn and his warriors had been acquainted of old. 'How do you order your hunting?' said Cailte to him. 'We,' said the young prince, 'surround the hill, the cairn, or the wood in which the deer may be at the time, and sometimes we succeed in killing some,

and at other times none, for a whole day.' Cailte, it is said, shed tears at hearing this statement, and the whole party then moved forward to the hill of Ceannabrat, near the present Ardfinan, on the borders of the counties of Limerick and Cork; and here they came to the confluence of three glens within the mountains of Slieve Keen, with a lake between them, called Loch Bo, or the Lake of the Cow, a locality still recognisable. Here they sat on the hill which lay to the east of the lake, called the Cnoc Mairde, where, as Cailte told them, the greatest and most wary stag in Ireland formerly dwelt. This rogue of a buck was called *Laithe-na-tri-mbeam*, or the gray buck with the three antlers, and, continued Cailte, 'he was killed at last by one of Finn Mac Cumhaill's warriors, after escaping all our efforts for seven and twenty years; and I was the man that killed him.' Cailte then went forth and posted his people around the lake, east, south, and north, and then he raised his hunting whoop, and gave three terrible shouts, so that there was not within hearing of him a deer, in plain, bog, mountain, or wood, that did not come careering at full speed to the lake, and sprang into it, as well to cool themselves as to escape the dreaded enemy. The men then closed in upon the lake, and not one of the animals escaped unslaughtered. Among them were wild oxen, red deer, and wild boars, and their number amounted to eight hundred. On another occasion St. Patrick and his retinue, with Cailte, came to the house of a rich landholder who lived in the southern part of the present county of Kildare, near the River Slaney. The farmer complained to Cailte that although he planted a great quantity of corn every year, it yielded him no profit, on account of a huge wild deer which every year came across the Slaney from the west, when the corn was ripe for cutting, and, rushing through it in all directions, trampled it down under his feet. Cailte undertook to relieve him, and he sent into Munster for his seven deer-nets, which arrived in due time. He then went out and placed his men and his hounds in the paths through which the great deer was accustomed to pass, and he set his deer-nets upon the cliffs, passes, and rivers around, and when he saw the animal coming to the ford of the red deer on the River Slaney, he took his spear and cast a fortunate throw at him, driving it the length of a man's arm out through the opposite side, and 'The Red Ford of the Great Deer' is the name of that pass on the Slaney ever since, and they brought his back to Drom Lethan, or the Broad Hill, which is called 'The Broad Hill of the Great Wild Deer.'"

With respect to the deer with the three horns, alluded to above, it is curious to find that in the manuscript minutes of the Committee of Antiquities for the year 1796, Mr. Ralph Ousley presented to the Academy "an account of a triple-horned moose deer found in the county of Limerick," and a fine specimen of the head of *Cervus megaceros*, with a small third horn, was lately offered for sale in Dublin.

From the earliest period deer have entered largely into the domestic history of every nation where they existed, not merely as an article of food, or a subject on which the poet could draw for the simile of grace, swiftness, and agility, but one with which have been linked many curious

myths, and which frequently lends a pictorial colouring to historic events. According to the Annals of the Four Masters, even before the Christian era, A. M. 4357, Eochaidh, joint sovereign of Ireland, was surnamed Fiadhmuine, or Eochy the Huntsman—" *Quod illi cognomen Fiadhmuine fecit Fiadh nimirum cervum interpretatur et Muin silvam;*" and another Pagan king, Niel Sedamin, was so called because "the cows and the does were alike milked" in his reign,—*fiadh* meaning a hind or doe. This art of taming deer and converting them into domestic cattle is said to have been received from Flidisia, the king's mother. King Daire of old had a magical fawn as a familiar, of which some wonderful tales are related. The deer tribe occupy a high place in Irish hagiology, and were, it is said, the subjects of many miracles. Pet deer were frequent attendants upon some of our early saints. St. Etchen, who conferred the order of priesthood upon Columbkille, yoked a stag to the plough; St. Attaracta, of Killaraght, near Boyle, yoked stags to cars to carry timber, the animals having first licked her feet in token of obedience. Two stags, obeying the sound of the bell of St. Fintan, came and carried his satchel. A stag carried the satchel of St. Berach, or Barry, of Kilbarry, on the Shannon. Stags, it is stated, carried stones and wood for St. Codocus, to build his monastery. St. Kieran, of Seirkieran, in the King's County, had at his monastery a fox, a badger, a wolf, and a stag, so tame that they were called his monks. A doe licked the hands and feet of St. Cuanna, and remained with him during the saint's life. A doe obeyed St. Gerald, of Mayo, and remained with him during its life. A wild doe came daily to St. Errina to be milked; others of the deer tribe obeyed the voice of St. Molagga. St. Patrick is said to have found a deer suckling a fawn in the spot where the Cathedral of Armagh stands, and upon his taking up the fawn, the dam followed him. A wild fawn obeyed the commands of St. Cairnuth, and was the cause of the death of King Leurig. Deer were said to have been employed to carry timber to build the castle of the King of Connaught, and were used for other domestic purposes; and, it is said, a deer found the books of St. Columbkille, which were lost.

The stag with the branching horns was celebrated among our ancient Irish poems, and venison formed a portion of the feast of our early Irish kings. Among the prerogatives of the kings of Tara referred to in the "Book of Rights," we find the "venison of Nas and the swift deer of Luibneach."

Among the circumstances corroborative of the number of red deer in Ireland in former times, may be mentioned the discovery of immense quantities of the tips of stags' horns, both in the great crannoge of Dunshaughlin, and also, within the last few years, in sinking a sewer through High-street, in Dublin. These bits of bone, which are from three to five inches in length, were sawn off from the remainder of the horn, which was, in all probability, manufactured into sword and knife-handles. Bone bodkins, fibulæ, also combs, spindle-heads, dagger-hafts, and other weapons, tools, and ornaments, &c., formed from the hard bones of mammals, abound in our antiquarian collection; and the antlers of the stag

formed celt handles, and were also sharpened, and used as spears and as points for making holes, and for several other purposes.

O'Flaherty, in his "Iar-Connaught," written in 1684, says, speaking of the Joyce Country mountains, "Next Mam-en are the mountains of Corcoga, on the confines of Balynahynsy, Ross, and Moycullin countreys, where the fat deere is frequently hunted : whereof no high mountain in the barony of Ballynahynsy, or half barony of Rosse is destitute." Mr. Hardiman, the learned editor and commentator of O'Flaherty's work, says that he "heard from an old native of the barony of Ross, in Iar-Connaught, that in his youth large red deer were common there ; that he frequently saw them grazing among the black cattle on the hills." And Molyneux, writing in 1715, has left on record the following remarkable passage :—" And here I cannot but observe, that the red deer in these our days is much more rare with us in Ireland than it has been formerly, even in the memory of man. And though I take it to be a creature naturally more peculiar to this country than to England, yet, unless there be some care to preserve it, I believe, in process of time, this kind may be lost also like the other sorts we are now speaking of."—that is, the gigantic extinct deer, the loss of which he attributed to some great pestilence. Poccocke said the mountains of Erris were "full of red deer, which are very indifferent food, being never fat. However, the hunting of them affords good diversion to those who traverse mountains on foot, but they frequently escape the dogs."

The following is a list of the remains of red deer :—

No. 1. A head and horns, complete, with 8 tines on each antler ; it measures 34 inches across the extreme breadth of the widest part of the antlers ; it was "found in the townland of Ballymore, barony of Ballintubber, South, county of Roscommon," and presented by the Drainage Commissioners.

No. 2. Head and antlers, 33 inches across, with 6 tines on right, and 8 on left horn ; "found 8 feet below the surface of the water in Ballinderry Lough, near Moate, county Westmeath, on 3rd May, 1849." See p. 20.

No. 3. Head and horns, the latter slightly imperfect, but showing that there were originally 10 tines on each side ; it is 31 inches across the widest part. See engraving, Fig. 6, p. 21.

No. 4. A head and antlers very perfect, with 7 tines on each side.

No. 5. Head and antlers, with 7 tines on right horn, the left imperfect ; found in the townland of Clonfree, county of Roscommon, in an old river-course at the mouth of Lough Flaskey, Strokestown district.

No. 6. A head and horns, the antlers imperfect at their tops.

No. 7. A head and antlers, the right imperfect, 9 tines on the left ; found in deepening an old river-course in the townland of Foxborough, near Elphin, county of Roscommon.

No. 8. A right horn, with 8 tines, "found in 1847, in excavating in alluvial soil and mossy peat, about 4 feet under the surface, adjacent to the River Clare, in the townland of Lehid, parish of Kilbannon, barony of Dunmore, and county of Galway."

No. 9. A right horn, imperfect.

No. 10. A left horn of 6 tines, and No. 11, a left horn of 7 tines, found in Ardakillan Lough, near Strokestown, county of Roscommon.

No. 12. A right horn of 7 tines. No. 13. Part of cranium, and right horn with 6 tines. No. 14. A left horn with 7 tines. No. 15. Part of cranium of a small animal. No. 16. A shed left horn of 7 tines. No. 17. A left horn with 7 tines. No. 18. Part of a head and left horn. No. 19. A shed left horn, with 6 tines. No. 20. Fragment of a shed left horn. No. 21. Upper part of cranium, wanting the horns; found in the river's bank, near Ballycumber bridge, King's County. No. 22. Upper part of cranium, wanting horns. No. 23. A fragment of right horn. Nos. 24 and 25. Ditto. No. 26. The fragment of a small left horn. No. 27. An imperfect left horn, sawn off below the crown. No. 28. Fragment of a right horn. No. 29. Ditto, much worn, as if by attrition in water. No. 30. A right horn. No. 31. Fragment of an antler top, with 4 tines. No. 32. A fine-shaped right horn, with 9 tines. No. 33. A left horn and fragment of skull. No. 34. A portion of left shed horn. No. 35. Fragment of right horn. No. 36. Fragment of cranium, and portion of left horn. No. 37. A fragment of shed left horn, found in the River Shannon, at Grosse's Island, near Carrick-on-Shannon, July, 1847. No. 38. A small imperfect left shed horn. No. 39. Fragment of a right shed horn. No. 40. Fragment of small left shed horn. No. 41. Upper fragment of left shed horn. No. 42. Upper fragment of horn, with 5 tines. No. 43. Ditto. All the foregoing were presented by the Board of Public Works. No. 44. Pelvis of a deer, marked "No. 8," with the inscription, "Found in the river between Annagossin and Castlebellingham." No. 45 is a small shed horn, apparently of the roebuck, presented by Joshua Ferguson, Esq.

There is some difficulty in distinguishing the cranium of the goat from that of the horned sheep, especially in mutilated specimens, and therefore the remains of both animals have been arranged and registered together. In the sheep, however, as has been well remarked by Owen, "the greatest diameter of the horn is across the longitudinal axis of the head; in the goat it runs parallel with it."

The Goat, *Gabhur*, the *Capra hircus*, has in all probability existed in Ireland from the earliest period of its inhabitation, and the head, horns, and other bones of this animal, have been found not only in crannoges, but in artificial caves, and in the stone passages and vaulted chambers in ancient raths, as well as in the clay which composes the ramparts of some of these moats. As the goat always gives way to the sheep in the progress of civilization, except in those regions which, from their peculiarly mountainous and rocky nature, must remain its natural habitat, we find this animal gradually disappearing in many localities, formerly celebrated for it in Ireland. It is seldom alluded to in Irish writings of antiquity, and is not enumerated among the animals which were given as tributes to the kings of Erin. Among the sheep's and goats' heads discovered in our crannoges were several specimens of the four-horned

variety (see Fig. 9, below). The two other figures (Figs. 7 and 8) are of the ordinary goat: both are from Dunshaughlin.



Fig. 7.



Fig. 8.



Fig. 9.

The old Irish goat was small, in some instances white, but more usually of an iron-gray colour. Many localities throughout the country, hills, rocks, and mountains, derive their names from goats, such as *Keam-a-gower*, the goat's path, in the west of the county of Cork; *Lisnangabhar*, the goat's fort, in the county of Monaghan; and the celebrated pass in Achill Island, called the *Minnaun*, or kid's path.

St. Patrick had two buck-goats, which he employed for carrying water. An account of them will be found in Colgan's "Trias Thaumaturga." They were stolen by three thieves, of the Ui-Torra, in the territory of Hy-Meith-tire, in the now county of Monaghan; but the saint received information which enabled him to detect the thieves, who declared that they had not stolen the goats. Patrick, however, it is stated, worked a miracle on the occasion, and caused the animals, which they had killed and eaten, to bleat from their bellies, and he prayed that the descendants of the thieves should, throughout all time, be distinguished by producing and wearing on their chins beards similar to those of buck-goats. "*Ad cujus miraculi augmentum et continuam memoriam accessit, quod imprecante Patricio tota posteritas istorum furum velut avitâ hereditate semper barbas, caprinis subsimiles habeant.*"—p. 150, c. 10.

Sheep, *Cuirra*, or *Caesiri*. Although the Irish histories do not refer to sheep at so early a date as horned cattle are alluded to, still there is evidence to show that they existed prior to our Christian era; for in the "Leabhar-na-gCeart," or Book of the Rights and Privileges of the Kings of Erin, they are thus mentioned in the Tribute of Cashel: "Sixty smooth-wethers;" also, "seven hundred wethers, not hornless;" again, "a thousand fine sheep," and "a thousand rams swelled out with wool," with many similar references to sheep, all showing that there were great numbers as well as different breeds thereof in Ireland at a very early period.

All the crania of sheep in the Academy's collection are horned, and, with the true goat's heads, already alluded to, amount to twenty-two

specimens, more or less perfect, and exhibiting great variety in size, shape and direction of horn-cores; they also show great difference in age. Among the specimens most worthy of note are Nos. 17 and 18, figured below, which are good examples of the *Ovis polycoratus* of Linnæus.

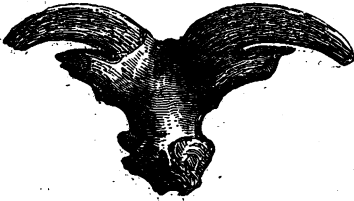


Fig. 10.

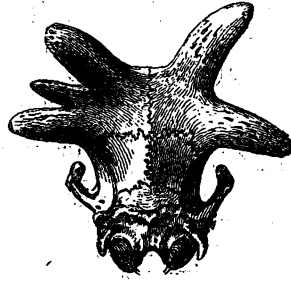


Fig. 11.

In the illustration from No. 16, Fig. 9, there are four horns, the left supplemental one being but rudimentary. No. 17, Fig. 10, is a good specimen of the head of the four-horned sheep of the ordinary character. It is drawn from the occipital aspect. No. 18, Fig. 11, affords a posterior view of the cranium of a small specimen of five-horned sheep, three on the left and two on the right side: the face part is wanting; it is only six inches across between the extremities of the horn-cores; the horns were all curved forwards over the face and orbits. No. 17 partakes of the same character, although in a slighter degree. According to Buffon, the many-horned sheep prevail in the North, and they probably came to us from that direction. In Iceland they have sometimes as many as eight horns, while in warm countries the hornless variety is less frequently found. With a plurality of horns is generally associated a coarser description of wool. In the cold parts of the Himalayan range we also find the four-horned variety, like No. 17.

In Nos. 1 to 7 inclusive, the face part is wanting. This latter was found at Dunshaughlin, and presented by the author. No. 12 was found at Ballinderry, county of Westmeath, and presented by Dr. Lentaigne. Nos. 14 and 15 are the most perfect specimens in the collection. In several of these heads it is difficult to draw a distinction between them. To the naturalist as well as the historian these remains of ovine animals are of much interest.

When the horse (*Cappul*) and the ass (*Assul*) were first introduced into Ireland, is unknown, but we read of the "deacon of the ass" in the days of St. Patrick. There are five horses' heads in the Academy's bone collection, but two of them are very recent.* The bones of the horse

* Dr. O'Donovan has afforded the following note upon this subject:—"I do not think we have had the ass long. *Asal* was the name of a man at a very early period; but it does not mean *asinus*."

were, however, found in the great bone cave at Shandon, along with those of the elephant.

The hare, the *Lepus Hibernicus* of Thomson, called in Irish *gearr fiadh* (the short deer), usually pronounced *gearreadh*, and in some places *miol-muirghe* (the animal of the plain), and the rabbit, *conneen* (the little hound), are both, in all probability, contemporaneous with man. There is reason to believe that we had the squirrel in abundance in our native woods in former times; it has been reintroduced latterly.

Swine (*Sus scrofa*, in Irish *Muc*) no doubt existed in Ireland in a wild and domesticated state from the very earliest times, and have ever since contributed largely to the wealth of the people. The wild hog (*Torc fiadhain*) abounded in the woods, which formerly covered so large a portion of the surface of the country, and fed upon the acorns and beech-mast; hence the frequent mention in our ancient annals of the failures of these crops, as well as the years in which they abounded. Yet it is remarkable that among the copious entries respecting epizootics affecting other animals, a mortality of swine is only mentioned four times anterior to the present century, viz., A.D. 1040, 1088, 1133, and 1741. Pigs were given as tribute to the King of Emania, as stated in the "Leabhar-na g-Ceart," where we read of "1000 hogs from their territories;" also "hogs not fit for journeying from their fatness;" "hogs of broad sides," and "bull-like hogs," with "sows for the sty," &c. Giraldus Cambrensis says, in his "Topographia Hiberniæ:"—"In no part of the world have I seen such an abundance of boars and forest hogs. They are, however, small, misshapen, wary, no less degenerated by their ferocity and venomousness than by the formation of their bodies." Among the restrictions put upon one of the kings of Ulster, in the Book of Rights, so frequently alluded to, was, that he was not to go into the "wild boar's hunt, or to be seen to attack it alone." Very many places in Ireland are called after pigs, such as *Sliabh-na-muice*, in Tipperary; *Gleann-na-muice-duibhe*, near Newry; *Ceann-tuirc*, in the county of Cork. The names *Muckross* and *Torc*, at Killarney, are derived from the same root. The name *Muckalagh* enters largely into Irish topographical names, and signifies a place where pigs fed,—probably on acorns.

The Irish pig, such as it existed thirty years ago, has become almost extinct, having been replaced by imported breeds of a more profitable character.* Several heads of swine have been found in peat-bogs, also in the great Dunshaughlin bone-heap, and in different other crannoges, as well as in the deepening of rivers, &c. But the anatomical resemblance between the wild boar and an aged domesticated animal of the ancient breed is so great, that it is difficult to distinguish the one from the other. Compared with veritable specimens of the ancient wild boar of Northern Europe, as found in the peat-mosses of Scandinavia, especially in Zealand, ours appears to have been a very diminutive animal.

* See the author's dissertation on the Pig in the "Dublin University Magazine" for March, 1854.

In the accompanying illustrations we have a good specimen of the cranium and of a part of the lower jaw and tusks of our ancient Irish pig, but whether from domesticated animals cannot now be determined. This

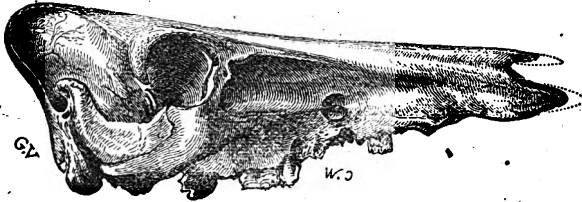


Fig. 12.

head, which measures only $11\frac{1}{2}$ inches, was found under the bed of the River Brosna, above Ballycumber Bridge, King's County, and was presented by the Board of Works; the lower jaw was procured from Lough Gurr, county of Limerick, and is of a yellowish-brown colour, such as all the bones found in that locality present.

There are the remains of nine pigs in the Academy's collection, besides several tusks. No. 1, figured above; No. 2, from the Ballinderry lake, is a little longer, and was presented by Dr. Lentaigne; Nos. 3 and 4 are crania of swine, slightly imperfect, procured from the Dunshaughlin crannoge, and were deposited in the Academy by the author. No. 5, ditto; locality unknown. Nos. 6 and 7, anterior portions of lower jaws, procured from Lough Gurr. Nos. 8 and 9, fragments of lower jaws.



Fig. 13.

Owen.—Having already described in the Proceedings for June 14, 1858, the varieties of horned cattle which formerly existed in Ireland, I have now but to put on record the registration of that great collection, amounting to forty specimens at present in the Academy, and to revise some of the opinions which I put forward in my former publication upon this subject.

From a recent inspection of all the zoological museums of note in Scandinavia and Northern Germany, I am led to entertain the views advanced by Professor Nilsson, of Lund, that the modern Auroch preserved in the Lithuanian Forests is a Bison, similar in character to that of America, and is not identical with the great extinct *Urus* of the ancients, or *Bos primigenius* of Owen, of which Nilsson possesses the largest and finest collection in Europe. It would also appear from Nilsson's investigations, that very many of the ox-heads in our collection belong to his variety of *Bos frontosus* in which the "ridge of the occiput rises high in the centre, convex; horns short, somewhat depressed at the root, directed outwards and backwards, then bent forward." The figure I have given at page 70 of this volume of the Proceedings is

from an undoubted specimen of that class; and there are many examples in our collection quite similar to other drawings in Nilsson's book, especially Figs. 3 and 5, published in the notice of that work, in the "Annals and Magazine of Natural History," vol. iv., 2nd series, p. 349.

The following is a list of the fifty-five ox crania now in the Academy:—

No. 1. The head of a fine bull, of the short curved horn variety, marked No. 22, and bearing the label, F. 702, with the following inscription:—"Young head, supposed to have been sacrificed." It was procured at Lough Gurr, county of Limerick, together with Nos. 2, 8, and 11. It is $23\frac{1}{2}$ inches long, and 8 across the forehead, and is figured at p. 72 of this volume.

No. 2. A cow's head, of the same variety or breed, 19 inches long, and only $6\frac{1}{2}$ across the forehead below the horns. See woodcut, p. 73, vol. v., marked F. 705 in old registry of Museum.

No. 3. A Cow's head, 18 inches long, of same breed as foregoing. No. 4. A specimen of the same breed, imperfect at the muzzle. Nos. 5, 6, and 7 possess the same characters. These four last were found at Dunshaughlin, and, with Nos. 10 and 19, were presented by the author.

No. 8. Ditto, marked No. 23, F. 703, in Museum registry. No. 9. An imperfect head of same breed. No. 10. From Dunshaughlin; deposited by the author. No. 11. Ditto; marked 24; F. 704. No. 12. Ditto; marked S. 7.

No. 13. Fragment of an ox-head, "found in a rath in the townland of Callanagh, parish of Ballyrowan, Queen's County, and presented by Joshua Ferguson, Esq."

No. 14. A long, narrow head. No. 15. A fragment, with left horn. Nos. 16, 17, and 18. Ox-heads, wanting the horn-slugs. The last specimen appears to have been struck in the forehead by a blunt instrument, possibly in slaughtering.

No. 19. The head of a young ox; horns curved rather more than usual; found in Dunshaughlin. No. 20. A cranium and horn-cores, found at Ballinderry; presented by Dr. Lentaigne. No. 21. The head and horn-cores of a small, young animal. No. 22. A fragment of a large head, with left horn-core; probably of a bull.

Nos. 23, 24, and 25 present the same characters as the foregoing, but the slugs are rather flatter, and curved more inwards, like those of the old Irish cow of forty years ago. All these were found in Dunshaughlin, and deposited by the author. They may be classed under the long-headed curved horned breed of which No. 1 is the type.

No. 26 is a fine bull-head of the straight short-horned breed, 18 inches long, discovered at Dunshaughlin, in 1840, figured at page 71 of this volume, and is the finest specimen of the domesticated descendant of the *Bos longifrons* which has yet been found in Ireland. Under this head are classed the following:—No. 27. A large ox-head, with a cut in the forehead, into which can be fitted several of our narrow bronze celts. No. 28. Head and horn-cores. No. 29 would appear from its colour, compared with the others, to be quite recent; it is a very good specimen

of *Bos longifrons*, and was "found in the trough chamber at Dowth."* No. 30 is the upper fragment of a head and horn-cores; figured at p. 73. No. 31. Portion of head and horn-cores. No. 32. Ditto, of a young animal; horns very straight. No. 33. Ditto. No. 34. A long head and horn-cores. No. 35. Head of a small, young animal. No. 36. A large head, wanting horn-cores. No. 37. A good head, resembling the *Bos longifrons*. No. 38. Upper fragment of head, and slugs. No. 39. A small long head, like those of the breed typified by No. 1. Nos. 40, 41, 42, 43, and 44. Crania and horn-cores, more or less perfect, chiefly small animals.

No. 45 is the upper portion of a head and horn cores, the latter rather retreating, and the former rising into a high projection. This head is figured at p. 70 of the Proceedings, and resembles more than any other in the Collection the new variety styled *Bos frontosus* of Nilsson, at least so far as the very high crest between the horns is a sufficient characteristic. No. 46 is of the same breed, but being that of a young animal, the protuberance is not well developed. No. 47 is a large head; the cores wanting; the mark where this beast was slaughtered by a blow on the forehead is very manifest.

Nos. 48 to 55 are eight hornless or *maohl* varieties, and all, except the two first, present a very remarkable protuberance, or frontal crest, but this is especially marked in Nos. 50 and 53. As the *maohl* ox would appear to have abounded in Ireland more than in any other part of Europe, I subjoin the accompanying illustration of this hornless variety, which may be taken as affording a good idea of its general characters. It was accidentally omitted in my communication upon the Ancient and Modern Races of Oxen in Ireland, at page 64.

With the exception of Nos. 1, 2, 3, 8, 11, 13, 20, 28, 29, 30, 32, and 39, all these heads were found at Dunshaughlin, and either presented or deposited in the Academy by myself. Besides the foregoing list of the osseous remains of extinct and existing mammals, derived for the most part from our lakes, bogs, and crannoges, and now forming one of the largest known collection of its kind, there are many fragments and isolated bones not enumerated. It now remains for the Academy to decide on their ultimate destination; and on that subject I have addressed a letter to the Council.

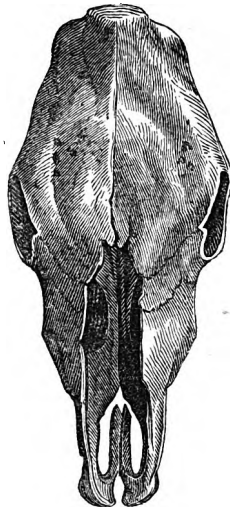


Fig. 14.

* See "The Beauties of the Boyne," p. 208.