

season with boar-fights, or bull- and bear-baiting. A grand exhibition of bear-baiting took place at Hatfield House when Queen Mary visited her sister, the Princess Elizabeth, during her confinement there, "with which their Highnesses were right well content." Soon after the ascension of the latter to the throne she entertained the Spanish ambassadors with bulls and bears, and some years afterwards she received the Danish ambassador at Greenwich, and entertained him with bear-baiting, "tempered with other merry disports." On one occasion at Kenilworth no less than thirteen bears were baited before the queen with large ban-dogs. From these notices it is evident that Queen Elizabeth was very fond of this sport. Some of the great nobles and ecclesiastics also kept bears and bear-wards. Latterly there were travelling bear-wards dependent upon their patrons. The bear was probably extinct in Britain about the time of the Norman Conquest, and is not known to have existed in Ireland within the historic period.

The wolf abounded in Britain in the Pleistocene and prehistoric periods, and varied in numbers in the historic age in proportion to the waste lands. It was a subject of many legal enactments, and grants of land were held for its capture. To the numerous references which Mr. Harting gives we may add an extract from the Litany of Dunkeld current in Scotland in the eleventh or twelfth century: "A cateranis et latronibus, a lupis et omni mala bestia, Domine, libera nos."

The animal had a price set upon its head by statute in 1621; the price paid for one wolf in Sutherlandshire was six pounds, thirteen shillings, and fourpence. In Ireland, in 1683, "for every bitch wolfe the price was six pounds, for every dog wolfe five pounds, for every cubb which preyeth for himself forty shillings, and for every suckling cubb ten shillings." It is obvious from these large prices that the wolf was becoming rare in Scotland and Ireland in the middle of the seventeenth century. The last of the British wolves was killed in Scotland in 1743 by MacQueen, a man remarkable for his stature and courage, who died in the year 1797. The memory of the exploit is still preserved by tradition. In Ireland the animal lingered until 1770. Mr. Harting deserves great credit for having collected together the evidence by which these dates can be fixed. The wolf became extinct in England in the reign of Henry VII.

The wild boar still lingered in Lancashire in 1617, and the last notice of the animal in the south of England is of the hunting of the wild boar at Windsor by James I. and his court. Mr. Harting considers that an entry in an account book of the steward of the manor of Chartley "1683.—February. Pd. the cooper for a paille for ye wild swine, o. 2. o.," proves that it was not extinct in England at that date. It seems however to us very unlikely that wild boars would have such attention paid to their wants, and more probable that they were domestic swine turned out into the woodlands to get the greater part of their own living.

The reindeer, so abundant in the late Pleistocene age, and so generally found along with Palæolithic implements, and so strangely associated with the remains of hippopotamus in the hyæna-dens of this country (a fact which proves the two animals to have been contemporaneous), was rare in the prehistoric period, and disappeared alto-

gether from its last foothold in Caithness about the latter half of the thirteenth century. We may remark that the recent attempts to introduce the animal into Switzerland have failed, apparently from the great heat of summer.

The beaver was living in the River Teivi, according to Girald du Barry, in 1159; and, according to Boethius, was taken in Lochness for the sake of its fur towards the end of the fifteenth century. We would call the attention of our readers to the remarkably interesting account of its reintroduction by the Marquis into the Island of Bute, where they are now increasing rapidly and building their dams. There is evidently no difficulty in naturalising them in this country.

We close this review regretting that it is impossible to do justice to the careful account of the different breeds of the "wild white cattle," which we believe to be the descendants of the domestic cattle introduced by the English, and which have always lived in unclosed lands.

W. BOYD DAWKINS

#### OUR BOOK SHELF

*Notes of Observations of Injurious Insects.* Report, 1880. By Eleanor A. Ormerod. 8vo. pp. 1-48. (London: W. Swan Sonnenschein and Allen. Edinburgh: J. Menzies, 1881.)

MISS ORMEROD and her assistants are to be congratulated on this very excellent Report, which is far more bulky than its predecessors, and correspondingly useful and interesting, and well illustrated. At the outset a very significant fact is mentioned. The season of 1880 was remarkably suitable for vegetation, and the attacks of insects consequently less severe; a high condition of vitality enabled the plants to more successfully cope with their insect enemies. The most injurious species for the year was the well-known larva of *Tipula* (daddy-long-legs), which not only attacked its more usual food, the roots of grasses, but proved itself extremely injurious to peas, so that in one field of twenty acres the prospective value in March was reduced to a realised value of only about one half in June; other crops were also attacked. Stimulating remedies, such as guano, salt, ammoniacal liquor, &c., had a good effect, but the grubs appeared to be remarkably indifferent to ordinary poisonous solutions. An experiment at the Kew Observatory as to the amount of cold they can endure showed that some survived 42° of frost. Another very injurious species was *Tephritis onopordinis* (the celery-fly); a dressing of gas-lime, unslaked lime, and soot had a good effect. The singularly misnamed *Psila rosæ* (the carrot fly) was also obnoxious; sowing the seeds in a mixture of leaf-mould, ashes, &c., proved of excellent service in this case. *Sitones lineatus* was very injurious to peas. We think Miss Ormerod acts injudiciously in calling this insect the "pea-weevil." Its larva is certainly very much given to attacking peas and many other plants, by eating the young shoots, but the true pea-weevil is *Bruchus pisi*, which destroys the peas themselves by feeding inside them. For the gooseberry saw-fly nothing proved so effectual as digging out the earth round the bushes when the larvæ and pupæ are underground, the removed portion being taken away and burnt; a suggestion that if pieces of woollen cloth be placed on the bushes the parent fly will deposit her eggs thereon seems far-fetched. Miss Ormerod has great faith in the efficacy of paraffine. In future it is proposed to extend the Report to insects not hitherto specially mentioned as desirable for observation, such as the larch-aphis and pine saw-fly. We are glad to note that the authoress has a Manual of Economic Entomology in the press.