

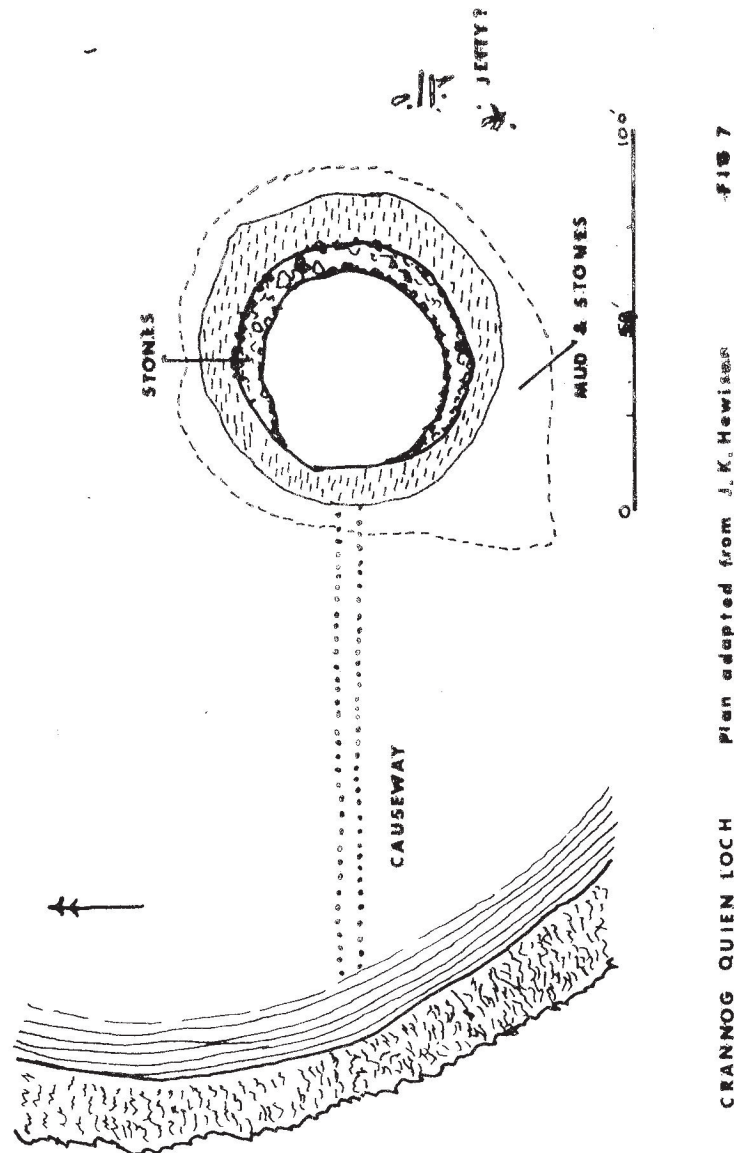
THE MAMMALS OF THE ISLAND OF ARRAN

By J. A. GIBSON

This account of the mammals of the Island of Arran is based on my own notes during the past thirty years, and on what I have been able to discover from a search of the previous literature. Arran was visited by many of the early travellers. Dean Donald Munro (1549), Bishop Leslie (1578), Martin Martin (1697) and Pennant (1772) each visited Arran and made some reference to the animals. The Rev. John Hamilton in the "Old Statistical Account", Kilmory Parish (1793), and the Rev. James Headrick ("A View of the Island of Arran", 1807) give some natural history notes. In the "New Statistical Account" (1840) the Rev. Dr. McNaughton gives a most admirable account of the natural history of Kilbride parish, and the minister of Kilmorie also gives some interesting notes. In his two Arran papers of 1866 and 1872, and in his subsequent account of Scottish mammals in 1880, E. R. Alston, a noted zoologist of his day, goes into some detail and mentions about a score of species. Boyd Watt in his three papers on Clyde mammals (1901, 1902 and 1905) gives some Arran notes and adds some records of cetaceans, and since then a few short notes have appeared.

The only previous attempt at a comprehensive account of Arran mammals was that of E. R. Alston. This is particularly interesting since we can now compare two accounts of Arran mammals almost exactly a century apart.

Alston listed seventeen species as occurring on Arran in his day and presumably deliberately excluded the feral goat, which was certainly present at that time; he also excluded all species already extinct. Rabbits had been introduced about a century before Alston's time and were widespread, hares had also been introduced and were well established, and the brown rat had gained a footing some fifty years earlier and had multiplied. There were two species of deer — red deer which were increasing steadily



after the recent introduction of fresh stock, and white-tailed deer which were slowly dying out after a successful introduction some fifty years previously.

Since Alston's day the red squirrel, badger and hedgehog have been introduced and are well established, and the bank vole has been 'discovered'. Introduction of the mountain sheep, wapiti, fallow deer (possibly) and fox have not been successful. Accidental introduction of the American mink may prove to be a problem. The white-tailed deer has died out, the common seal has greatly increased, and there are several additional records of whales.

Apparently there have never been any moles, polecats, stoats, weasels, martens, true wild cats, water voles or mountain hares on Arran. There may be bats other than the two common ones recorded. 'Whales' are frequently reported in the Clyde and are seen off the Arran shores, but the eight cetaceans included in this list are the only ones about which I can discover any firm details.

From the Clyde islands and other islands in the West of Scotland many subspecies have been described, particularly amongst the small rodents. The validity of many of these races is in some doubt, and at best is largely a matter of opinion. Some of the races described have been accepted by one authority and rejected by another. They have no relevance to this paper, and are not discussed here. For me the species is always the basic unit.

My best thanks are due to Her Grace Mary, late Duchess of Montrose, for giving me an extended loan of the Arran estate registers and game books, and to Major J. P. T. Boscawen of Dougarie for much information about the Dougarie estate. For many valuable notes I am extremely grateful to Mr. Dugald McKillop, formerly of Kilpatrick, Mr. Ronald MacDonald, Dippen, Mr. Howard Walker, Brodick, and a succession of lightkeepers at Holy Island and Pladda. Without the help of all these people this account of the mammals of Arran could not have been written.

In the following systematic list the arrangement and nomenclature follows "The Identification of British Mammals" (second edition, 1969) by Dr. G. B. Corbet.

published by the British Museum (Natural History), London.

Order INSECTIVORA

HEDGEHOG *Erinaceus europaeus* L.

The hedgehog is not a native of Arran. Some were brought from the mainland and liberated near Shiskine about 1930. They established themselves reasonably well and have now spread thinly over the island, although records from the north part are uncommon.

COMMON SHREW *Sorex araneus* L.

Common and widely distributed. No evidence from Holy Island, where it is apparently replaced by the pygmy shrew, or from Pladda.

PYGMY SHREW *Sorex minutus* L.

Apparently fairly well distributed throughout Arran; I have trapped a good many. Also occurs on Holy Island.

WATER-SHREW *Neomys fodiens* (Pennant)

The water-shrew is widely distributed throughout Arran but is local, as one would expect. Melanistic specimens are common. The Rev. J. M. McWilliam recorded the water-shrew from Pladda in 1925, but it had apparently died out there by 1931, and the extinction was blamed on a cat brought across to the island by one of the light-keepers. As McWilliam says (*Scot. Nat.*, 1934: 99-100), it is in several respects a curious story. Anywhere in the West of Scotland less typical of water-shrew habitat than Pladda can scarcely be imagined. There is no running water on Pladda, indeed no water at all apart from a few brackish marshy-pools on the shore. Drinking water has to be imported to the lighthouse. Yet the water-shrews were clearly identified and were sent by McWilliam to his old friend M. A. C. Hinton, Keeper of Zoology in the British Museum (Natural History), London. The specimens are still preserved in the Museum, where I have seen them (Reference 34.8.24. Nos. 1, 2 and 3).

Acting on instructions from McWilliam I made many visits to Pladda during the 1940s simply to hunt for these shrews, but without success, and since then every time I go to Pladda I enquire or look for water-shrews, but still with no success. Indeed, I have been unable to find any species of shrew on Pladda, nor, apparently, have the light-keepers.

Order CHIROPTERA

PIPISTRELLE *Pipistrellus pipistrellus* (Schreber)

Common and widely distributed. Fairly common on Holy Island and has been seen at Pladda. I have seen bats, presumably of this species although one can not be certain, at well above 1,000 feet.

LONG-EARED BAT *Plecotus auritus* (L.)

Fairly common and widely distributed. Specimens have been caught on Holy Island.

Order CARNIVORA

FOX *Vulpes vulpes* (L.)

Formerly occurred, but 'long ago extirpated' by the time of the

New Statistical Account (1840). I can trace no record into the nineteenth century. In the 1920s a pair was brought to Arran and turned loose in Glen Sannox, in an attempt to re-establish the species. One was later killed, however, and the other was eventually caught and taken back to the mainland.

POLECAT. *Mustela putorius* L.

There are no polecats, stoats, weasels or martens on Arran and never have been; many of the old accounts note their absence. Ferrets *M. p. furo* L. of course, frequently get free, and may live in the wild state for a considerable time, but there is apparently no evidence of feral breeding.

AMERICAN MINK *Mustela vison* Schreber

Recently some American mink escaped from their owner in the south of the island, and it looks as though they might establish themselves. In 1968 I saw individuals at two widely separated places in south Arran, and an apparent family party of five or six was seen crossing a burn; one was shot.

BADGER *Meles meles* (L.)

Not apparently a native of the island — there are no old records. Boyd Watt (1905) records that some were introduced to Glen Sannox prior to 1895 and established themselves well. At present there are still a few on the island although their numbers have significantly declined during the past quarter century, and all are now apparently confined to the north. Mr. Dugald McKillop saw one actually on the shore at Kilpatrick in the early forties.

OTTER *Lutra lutra* (L.)

Always relatively plentiful, and one of the few animals mentioned in the *Old Statistical Account* (1793). The Dumfriesshire otter hounds used to make regular visits to Arran, but there has been none since the 1939-45 war. I am glad to say that otters are still fairly common, are apparently coming back to many of their old haunts, and are not persecuted. Otters are often seen far up the glens, and have been seen at Loch Tanna.

WILD CAT *Felis silvestris* Schreber

Pennant in his *Tour in Scotland* (1772) reported the wild cat as a native of Arran, and in the *New Statistical Account* (1840) wild cats are recorded from Kilbride parish. Alston regarded Pennant's statement as erroneous, probably referring to house cats gone wild, and added that there appeared to be no evidence that the wild cat was ever found in the islands. Certainly some feral cats grow to an extremely large size. Boyd Watt mentions that in 1900 feral cats had a stronghold in rocks near Lochranza, and dogs could not dislodge them. No Arran specimen I have handled, even of considerable size, has been a true wild cat.

Order PINNIPEDIA

GREY SEAL *Halichoerus grypus* (Fabricus)

An adult grey seal got caught and was unfortunately drowned in

a fishing net off Kildonan in July 1952. The carcass was beached and I saw it before it was towed out to sea. This is the only genuine record I can trace. Occasionally seals are reported as 'great grey'. On enquiry, however, identification usually seems to have been made on size alone, which is not very helpful, although the records may be perfectly correct.

COMMON SEAL *Phoca vitulina* L.

Common around the shore at all seasons and breeds at several places, more so in the south. Alston (1872) said 'sometimes seen, but is not plentiful on any part of the coast'. If this was true, there has been a very genuine increase in population.

HARP SEAL *Pagophilus groenlandicus* (Erxleben)

Mr. F. Gordon Pearcey, naturalist to the Scottish Fishery Board, informed Hugh Boyd Watt (1902) that he 'saw in June, 1899, two seals, probably this species, close to his ship, when trawling between Pladda and the Ayrshire coast. He hit one with a revolver shot, but it sank shortly after'. Watt wisely kept this sight record in square brackets.

Order ARTIODACTYLA

WILD BOAR *Sus scrofa* L.

Mentioned by both writers in the *New Statistical Account* as having been abundant when the island was thickly wooded, and it is added that the fact of Arran 'being part of the Royal hunting domain, gives credibility to the tradition'. The date of extinction is uncertain, but the island was still thickly wooded at the time of Dean Donald Munro's tour in 1549. Boyd Watt (1905) records that remains were found in the mound at Tor Castle.

RED DEER *Cervus elaphus* L.

The red deer is a very ancient resident of Arran and is apparently indigenous; records go back to historical times. Bones were found when excavating the mound at Tor Castle. Bishop Leslie (1578) spoke of a 'mervellous multitude'. Martin Martin (1697) put the number at about 400. Pennant (1772) said the stags were 'reduced to about a dozen'. The *New Statistical Account* (1840) said formerly very numerous but 'now reduced to a few dozens' — all in the glens at the north. Round about 1850 the Arran red deer were at a very low level, and may actually have died out. The actual evidence is contradictory. In Brodick Castle there is the head of what is supposed to be the last indigenous Arran stag, but Alston (1872) says 'the original breed was never exterminated'.

At any rate, fresh blood was introduced in February 1859 when six stags and fourteen hinds were imported from Knowsley Park in Lancashire. By 1862 stalking was re-commenced. Alston (1872) gave the population as approximately five hundred, and they steadily increased after that, so much so that at the turn of the century a deer

fence was erected right across the island to confine the deer to the north. This resulted in a decrease in average weight.

There is a very fine collection of heads in Brodick Castle, which is well worth inspecting, and many of these have the weights also recorded. Douglass Lodge in the west of the island has its walls decorated with some two hundred red deer antlers, which makes a very impressive sight. Deer stalked on Arran are weighed with heart and liver. The average weight of stags before the deer fence was erected was 20 stones; since then weights average 16 stones.

The heaviest stag shot on Arran weighed 29st. 8lbs. It was shot by the Duke of Hamilton some time in the 1870s. Another shot in 1872 by Mr. H. Padwick weighed 28st. 6lbs. A third shot in 1888 by the Hon. T. Fitzwilliam weighed 27st. 8lbs. Several stags have weighed more than 25 stones.

The best deer head appears to be the 1872 stag which was a fourteen-pointer, with an antler length of forty-two inches. The inside span of this head was forty inches, apparently the widest inside span of any British red deer head. Many other fourteen-pointers have been shot, and a sixteen-pointer was shot in 1870.

There were approximately 1,250 deer on the island at the end of 1950, and Mr. Howard Walker estimates the present population at about 1,750. These are nearly all in the north, with possibly a hundred or so that have managed to cross the deer fence into the south. Since the 1939-45 war the number of deer shot on Arran has averaged about one hundred a year.

McConnochie (*Deer and Deer Forests of Scotland*, 1923) records that in 1894 a wapiti hind was introduced to Arran, presumably in an attempt to improve the breed of red deer, but no further details are known. Probably this was the North-American wapiti *Cervus elaphus canadensis* Erxleben, the North American race of our British red deer, which was being introduced fairly widely to Britain at that time.

FALLOW DEER *Dama dama* (L.)

Colonel T. Thornton in his *Sporting Tour* (1804), when writing of Arran, says 'Deer, both fallow and red, are likewise tolerably numerous'. It is important to state here that Colonel Thornton did not actually visit Arran, and is only quoting what he had apparently been told. I am sure he was mistaken. None of the old writers who visited Arran, and some gave detailed natural history accounts, makes any reference to fallow deer. There were certainly none on the island in Alston's time. Boyd Watt (1905) mentions a herd at Brodick Castle. I can find no reference to this in the estate registers.

ROE-DEER *Capreolus capreolus* (L.)

Both writers in the *New Statistical Account* mention the roe-deer as formerly numerous when woodland was abundant, but 'long ago extirpated'. Alston says 'appears never to have been found in Arran' and may have overlooked the *Statistical Account* references. The Duke of Montrose told Whitehead (*Deer of Great Britain and Ireland*, 1964)

that roe were introduced about 1840 but were not a success. What his authority is for this statement I do not know. There is no mention in the Arran estate books, which I have searched, and Arran was in the hands of the Hamilton family at the relevant time. Whitehead comments 'it is strange the roe should have done badly on Arran . . . which seems to be ideal for them', and with this I entirely agree. Possibly the Duke was confusing the roe with the introduction of American deer at that time. There are no roe on Arran to-day, although one proprietor is considering introduction.

WHITE-TAILED DEER *Odocoileus virginianus* (Zimmerman)

A species of American deer was introduced to Arran in 1832; it did fairly well for many years but died out before the turn of the century. The introduction is well documented by many writers from the *New Statistical Account* onwards, but the precise identification of the species was in some doubt. Whitehead (1964) in his *Deer of Great Britain and Ireland* gives a masterly and beautifully detailed account of its history; this is a simply superb piece of bibliographical research that should be read by everyone even remotely interested in the subject. This deer was first identified as the Guazupuco (or marsh) deer, and later as the Virginian (or white-tailed) deer. Whitehead gives an ingenious and almost certainly correct reason for the earlier, and apparently mistaken, identification. Alston first recorded the deer as Guazupuco (1866) but later changed this to *virginianus* (1872). He was a noted zoologist, and presumably in the interval between these two reports he had been able to make a detailed examination. I have no doubt that the correct identification was white-tailed deer.

WILD GOAT *Capra hircus* L.

Feral goats at one time roamed widely on Arran; they were mentioned in the *Statistical Account* of 1840. They were gradually shot out, however, and it seems that the few survivors were removed to Holy Island, where there had long been a herd, before the 1914-18 war. The present size of the Holy Island herd is about fifty animals.

WILD SHEEP *Ovis aries* L.

There are no feral sheep on Arran, but in the 1950s two wild mountain sheep were introduced, presumably in the hope that they would establish themselves on the high hills. They did not apparently survive long, however, and there is no trace of them having bred successfully. Whitehead says that the Duke of Montrose obtained these sheep from the London Zoo, and he gives the species as Mountain sheep *Ovis ammon poli*.

Order LAGOMORPHA

HARE *Lepus capensis* L.

The hare was not mentioned by Pennant in 1772. It was introduced shortly after this and had become 'very plentiful' by the time of the *New Statistical Account* (1840). At present it is common and widely distributed. After myxomatosis and the fall in rabbit

population it underwent the usual increase, but the numbers now seem to be stabilised.

MOUNTAIN HARE *Lepus timidus* L.

Barrett-Hamilton and Hinton in *A History of British Mammals* (1910-21) record the mountain hare from Arran, and give E. R. Alston as their authority. This is an error. Nowhere in the writings of Alston is there any reference to the mountain hare on Arran. I know of no other record, and there are certainly no mountain hares on Arran now, although introduction has recently been considered.

RABBIT *Oryctolagus cuniculus* (L.)

Common and widely distributed throughout Arran, and on Holy Island. Mentioned by Pennant, so must have been introduced before 1772. Much reduced by myxomatosis, but still locally common. Sporadic local outbreaks of myxomatosis seem to keep the population under control.

Order RODENTIA

RED SQUIRREL *Sciurus vulgaris* L.

Introduced to the Brodick and Sannox woods in the 1920s and now widely distributed, although still commoner in the north of the island. Fresh stock was introduced in 1965.

WOOD-MOUSE *Apodemus sylvaticus* (L.)

Alston said 'common'. This is not exactly my experience. It occurs widely throughout the island but appears to be rather local. Certainly the mouse of the fields and the stooks on Arran is the house-mouse, as one would expect, and even in the woods and birch-scrub my traps usually caught equal numbers of wood and house mice.

HOUSE-MOUSE *Mus musculus* L.

Commonly and widely distributed. Also on Holy Island.

BROWN RAT *Rattus norvegicus* (Berkenhout)

Common over all the island. I have seen it above 1200 feet. Not mentioned by Pennant in 1772, but was recorded as very common by the *New Statistical Account* in 1840. Also common on Holy Island. There appears to be no genuine record of the black rat *Rattus rattus* (L.) on Arran.

BANK-VOLE *Clethrionomys glareolus* (Schreber)

Apparently not very common, but apt to be overlooked. All 'voles' are lumped together by many people. I have handled several specimens, but can give no accurate assessment of its population as compared to the field-vole.

FIELD-VOLE *Microtus agrestis* (L.)

The field or short-tailed vole is common and widely distributed throughout Arran. I have no records from Holy Island or Pladda.

Order CETACEA

COMMON RORQUAL *Balaenoptera physalus* (L.)

Reported from Loch Fyne and the Kilbrannan Sound in the *New*

Statistical Account (1843) and by Dr. John Walker in his *Essays* (1808), where he states that this whale frequents the area every year during the herring season. Alexander Gray, Curator of the Marine Biological Station at Millport, recorded that about the year 1889 the Kilbrannan Sound was frequented by a whale, 50 to 60 feet long, followed by two calves. All three became well known to the local fishermen, and were often seen by Mr. Gray, who thought they were almost certainly common rorquals. At best these are tenuous records, and on the fringe of our area.

BOTTLE-NOSED WHALE *Hyperoodon ampullatus* (Forster)

Frequently reported from the Kilbrannan Sound and adjoining waters. References to the regular occurrence of this species go back well over a century.

CUVIER'S WHALE *Ziphius cavirostris* G. Cuvier

A partly decomposed whale was washed up on the beach at Kildonan on 1st July 1961. The lower jaw was sent to the Royal Scottish Museum, where it was identified as a Cuvier's whale by Dr. A. S. Clarke. I am grateful to Dr. F. C. Fraser of the British Museum (Natural History) for drawing my attention to this record, which appears to be the only authentic Clyde record of a Cuvier's whale, although the specimen stranded at Girvan on 11th July 1919 was probably of this species.

PORPOISE *Phocoena phocoena* (L.)

Commonly seen in the surrounding seas at all seasons of the year. Specimens have been stranded at Whiting Bay in October 1926, Kildonan in July 1927, and Corrie cravie in July 1968; there are possibly other strandings not reported.

COMMON DOLPHIN *Delphinus delphis* L.

Dr. F. C. Fraser (*Report on Cetacea*, 1934) records that a specimen of the common dolphin, four feet six inches long, was stranded at Kildonan on 5th September 1932.

BOTTLE-NOSED DOLPHIN *Tursiops truncatus* (Montagu)

The *New Statistical Account* (1843) records that this species frequents the coast of Saddell and Skipness (Kilbrannan Sound) 'during the herring-fishing season, but disappears on the approach of winter'. In early April 1931 a dead dolphin was seen floating in the Kilbrannan Sound. It was eventually washed up on the Kintyre shore at Ugadale on 7th April. It was a female, eleven feet five inches long, and was identified as a bottle-nosed dolphin from the lower jaw sent to the Royal Scottish Museum.

WHITE-BEAKED DOLPHIN *Lagenorhynchus albirostris* Gray

Frequently seen jumping in the surrounding seas and particularly in Kilbrannan Sound. The first authentic record of a white-beaked dolphin in Scottish waters was that of one shot in Kilbrannan Sound in September 1879 by Mr. J. Y. Buchanan. Boyd Watt (1902) says the skull of this specimen is preserved in the Anatomical Museum, Edinburgh. Since then there have been many subsequent captures in

the Kilbrannan Sound. After the porpoise, this is the cetacean most commonly seen in Clyde waters.

KILLER WHALE *Orcinus orca* (L.)

The killer is well known in the Kilbrannan Sound, and between Arran and Ailsa Craig. There are numerous records from many observers who are familiar with this species, with its conspicuous colouration and huge back-fin. I myself have seen it repeatedly.

BIBLIOGRAPHY

Most of the old writers referred to are already well known to naturalists and require no further reference details. Others less often quoted have the full titles given in the text. The full details of the various publications by E. R. Alston and Hugh Boyd Watt are as follows:

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THE REPTILES AND AMPHIBIANS OF THE ISLAND OF ARRAN

By J. A. GIBSON

In the "New Statistical Account" (Volume five, 1840) the Rev. Dr. McNaughton gives an admirable account of the natural history of Kilbride parish, with a separate section on 'Reptiles'. The minister of Kilmorie parish, the Rev. Angus Macmillan or the Rev. A. Macbride, also gives an above-average account of the natural history, and includes a paragraph on snakes. These two accounts together represent the only significant contribution to our knowledge of Arran reptiles and amphibians that has so far been published, so it is worth while quoting them in full, as follows:

Kilbride: "The reptiles most commonly found in the parish are the nimble lizard, the blind dorne, the adder, the warty-eft, the water-eft, the brown-eft or ask, the common frog, the edible frog, and the toad. The writer has not seen any of the venomous toads described by Pennant as natives of Arran; but the people of Lochranza declare that they are often seen in that quarter, and describe them as rough on the back, corpulent in shape, and from six to eight inches in length."

[The blind dorne is the slow-worm, and the eft is the newt.]

Kilmorie: "Several species of snakes are found in the woods, glens, and moorlands adjoining the arable ground; but seldom if ever in the heights of the interior. The largest of them is between three and four feet long."

Apart from the "Statistical Account" only a few brief notes have appeared, so this survey of the reptiles and amphibians of the Island of Arran is largely based on my own collecting during the last thirty years. Nomenclature follows "The British Amphibians and Reptiles" (third edition, 1964) by Dr. Malcolm Smith, Collins: London.

REPTILES

SLOW -WORM *Anguis fragilis* L.

Widely distributed and common in suitable localities. Found far up the glens. Often killed by visitors and reported as 'snake'. It occurs on Holy Island, but I have not yet found it on Pladda.

COMMON LIZARD *Lacerta vivipara* Jacquin

Fairly common and widely distributed, particularly in the glens. Common on Holy Island, and I have found it on Pladda.