

CHAPTER 1

What is an Island?

ISLANDS INCITE PASSION and commitment. Frank Fraser Darling, pioneer conservationist, author of the New Naturalist on *Natural History in the Highlands and Islands*, and serial island dweller, commented towards the end of his life that ‘the sea subtly detaches one from immediate, practical reality and casts one into a kind of mystic reverie linking one’s life and nature, fusing visible stimuli with meditation.’ Lawrence Durrell began his book *Reflections on a Marine Venus* with the words:

I once found a list of diseases as yet unclassified by medical science, and among these there occurred the word Islomania, which was described as a rare but by no means unknown affliction of spirit. There are people, Gideon used to say by way of explanation, that find islands somehow irresistible. The mere knowledge that they are on an island fills them with an indescribable intoxication.

Islomania certainly exists. Although it is a chronic and recurring disease, for most it is a non-threatening malady and rarely fatal. In one form or another it has been about for centuries. The challenge is to understand something about islands and their natural history without diluting their seductive ‘intoxication’.

Pliny the Elder was being nothing more than prosaic when he wrote in the first century AD that ‘opposite the Rhine delta lie the Britannia islands; they lie to the north-west [of Europe], separated from Germany, Gaul and Spain and the greatest part of Europe by a wide channel.’ He recorded that the largest island was called Albion by the natives; he says they referred to themselves as *Pretani* (painted ones), a word which somehow mutated into *Bretani* (Britons). He listed the other islands that make up what he called the Britannias as 40 Orcades

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(Orkney), seven Haemodes (Shetland?), 30 Hebudes (Hebrides), Mona (Anglesey), Monopia (Isle of Man), Riginia (Rathlin Island), Vectis (Isle of Wight) and Silumnus (Scilly – which formed a single landmass until around AD 1000).

Pliny never visited the Britannias. He and other early writers got their knowledge of British geography from a voyage around 320 BC by Pytheas the Greek of Massalia (Marseilles). Pytheas had followed the route of the tin traders from Brittany to Cornwall and thence sailed in a series of stages up the west coast of England and Scotland to Orkney (and possibly as far as Shetland or even Iceland: Cunliffe, 2001). From the north isles of Orkney it is possible to see three points of land further north: Fair Isle, halfway between Orkney and Shetland; Fitful Head, on the main Shetland island (always known in Shetland as the Mainland); and most distant, the island of Foula. Pytheas believed he had seen the edge of the world (*Ultima thule*). He returned south down the east coast of Great Britain, completing its first known circumnavigation. He described Britain as triangular, 'like Sicily', with its nearest point (Kantion – or Kent) 19 km from mainland Europe. He estimated that the shortest side of the island was 1,400 km long, the other sides being 2,800 km and 3,700 km, giving a total of 7,900 km – remarkably close to the true figure of 7,580 km.

The next historical record of the British islands – if historical is the right word – tells of an Irish saint, Brendan (c.484–577) of Clonfert (a place on Lough

FIG 4. John o' Groats, looking north across the Pentland Firth towards Orkney. (R. J. Berry)



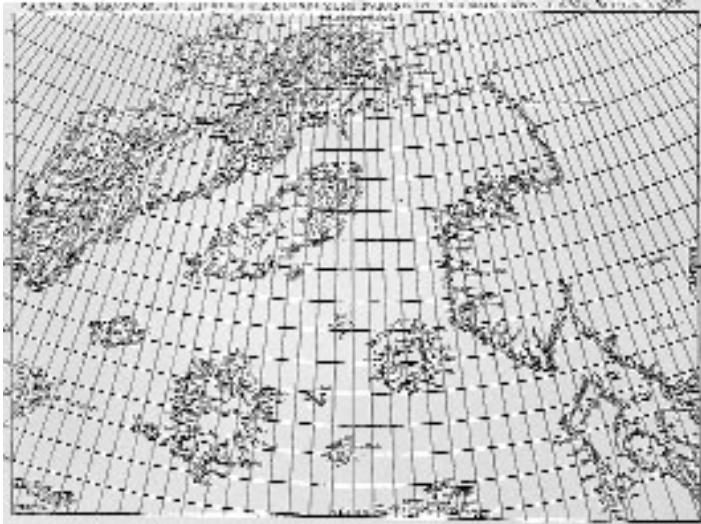


FIG 5. The “Zeno map” (1558), probably produced when Nicolò Zeno was associated with Henry Sinclair, appointed Earl of Orkney in 1379. ‘Friesland’ seems to be the Faroe Islands (Ramsey, 1972). (Reproduced by permission of the Royal Geographical Society)



FIG 6. The North Atlantic as shown in *Theatrum Orbis Terrarum* (1570) by Abraham Ortelius (1527–98). This was the first reasonably accurate map of such an extensive area. (Reproduced by permission of the Royal Geographical Society)

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Derg in Galway) who is supposed to have made several fantastic voyages. Between 520 and 530 he went to Brittany and perhaps the Mediterranean. Then in 545 he built a curragh in Kerry and set sail on a five-year voyage which took him to St Kilda, Shetland, the Faroes and the Westman Islands off Iceland. Finally he travelled in a larger wooden ship from the Aran Islands to North America, where he allegedly found Irish monks already settled.

Three centuries after Brendan, another Irish holy man, Dicuil, wrote the *Liber de Mensura Orbis Terrae* (825), apparently drawing on first-hand knowledge. He tells us:

All round our island of Hibernia [Ireland] there are islands, some big, some small, some middling; some lie in the sea to the south of Britain, others to the west; but they are most numerous in the northwestern sphere and in the north. On some of these islands I have lived, on others set foot, of some had a sight, of others read ... These islands are for the most part small with narrow sounds between them. In these islands hermits coming from Ireland have lived for almost a hundred years.

Dicuil is generally believed to have been describing the Faroes. The *Færeyinga Saga* (dating from the twelfth or thirteenth century) tells us that the Irish were there from about 700 until the first Norse coloniser (Grim Kamban) arrived on Suðuroy in 820 and dispossessed them. Further north in southeastern Iceland there are place names suggesting that Irish Christians (*pápar*) were resident when the Norse arrived about 860; there is written testimony that these *pápar* refused to live with the heathen incomers. They took themselves off leaving behind bells, crosiers and devotional books written in Irish script.

A recurring problem in all these early accounts is separating fact from over-imaginative interpretation or sheer fiction. For example, the *Navigatio Sancti Brendani*, a widely circulated account that appeared four centuries after Brendan's death, tells of Brendan sailing on one of his journeys westward from Ireland for 15 days with a crew of 60 men, becoming becalmed for a month, and then landing on the 'Fortunate Islands', which the *Mappa Mundi* hanging in Hereford Cathedral (completed c.1275) places at the site of the Canaries; it labels them *Fortunate Insulae sex sunt Insulae Sct Brendani*. Several decades later Brendan's islands appeared at the site of Madeira on a map made by Alelino Dulcert in 1339. Then in 1544 Sebastian Cabot sited them at the latitude of Newfoundland in mid-Atlantic. They lingered on in subsequent maps until finally disappearing in the mid-seventeenth century.

St Brendan's islands probably relate to real discoveries, although it is impossible to be certain which islands were being described and whether he was

really their discoverer. The same cannot be said of the island of Buss or Brasil, which first appeared on an Anglo-Saxon map of about 993 as a huge island west of Ireland. Its name may be derived from the Irish Gaelic, meaning 'the great and wonderful island'; it certainly had nothing to do with the country we call Brazil. In 1625 a man in County Monaghan secured a royal grant to own the island. Then in 1674 an Irish sea captain, John Nisbet, claimed to have landed on it and rescued several Scottish castaways. Not to be outdone, one Morrogh O'Ley of Galway declared he had lived there for six or seven years in the 1680s. He had not been idle. Whilst there he learnt to practise medicine.

Then there was Friesland, first reported by a Venetian adventurer, Nicolò Zeno, in 1392 (although his account was not published until 1558) on a voyage sponsored by Henry Sinclair, Earl of Orkney, who wanted to extend his influence. Friesland occurs on all maps of the area from 1558 to 1660, usually plotted southeast of Greenland and southwest of Iceland; it may possibly have been based on an early landing in North America.

Friesland did not survive long in the cartographic record. In contrast, Buss died hard: although it dwindled in size on successive maps from a large island to a small rock, it was only finally removed from British Admiralty charts in 1873. And it was not unique: nineteenth-century charts included around 200 islands now known not to exist. Many of these must have been simple optical illusions, wistfully imagined from ships but perhaps no more than a low cloud bank or iceberg. Or they may have been wrongly positioned. Or perhaps fraudulently described to satisfy financial backers – this certainly happened in the case of French claims to a fertile and mineral rich landmass south of Africa.

Another problem is that islands may actually erode away and disappear. Well-authenticated examples of this are the volcanic islands of Gunnbjörn's Skerries between Iceland and Greenland, and Nyer and Geirfuglaskir (where great auks once nested) off Iceland. They are obviously not the same as another sort of disappearing island familiar in Celtic lore, ones visible only to the elect. Once upon a time it was said that nine islands to the west of Ireland rose out of the sea every seven years, plainly visible from the coast of Galway, but that they vanish if anyone attempts to reach them. The Orkney island of Eynhallow was similar: it was claimed to emerge periodically but sink again unless someone could sail to it with steel in his hand and without looking away. Once this was achieved, the island has stayed put. Is it still there. The fascinating saga of disentangling myth from reality for the North Atlantic islands is set out by William Babcock (*Imaginary Islands of the Atlantic*, 1922) and Raymond Ramsay (*No Longer on the Map*, 1972).

The first reasonably accurate map of the British Isles was produced by Mercator in 1564, but the outlying parts were very vague. Even though St Kilda is visible from

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Lewis, the proprietor, Rory Mor MacLeod of Dunvegan, could be no more precise in 1615 than that it was 'a day and a night sailing from the rest of the North Isles [Outer Hebrides], far out on the ocean sea'. The first detailed map of St Kilda was prepared by Martin Martin in 1697. The first systematic survey of the British coasts was begun in 1748 on the west coast of Scotland by Murdoch Mackenzie, an Orcadian who was Hydrographer to the Admiralty. He was commissioned because of the frustrations of the Hanoverian forces in tracking down Bonnie Prince Charlie among the many Scottish islands after the 1745 uprising. MacKenzie's charts were a monumental achievement and infinitely superior to the rough sketches then in use. By 1776 he had produced charts of the west coast of Britain from Orkney to the Bristol Channel, plus the entire Irish coast. He was elected to the Royal Society, nominated by Joseph Banks and Thomas Pennant. Although the Ordnance Survey was set up in 1791, it did not survey St Kilda for itself until 1967. The first good map of Fair Isle appeared in 1752.

BRITISH ISLANDS

How many British islands are there (Figs 8 & 9)? (To avoid confusion I will call the largest British island 'Britain' or 'Great Britain', and reserve the term 'British Isles' for Britain plus Ireland and all the other islands round the two big ones). One guesstimate is about 5,000, but many of these are little more than isolated rocks. The Scottish Tourist Board claims there are 790 Scottish islands. They probably got this figure from Bill Murray (1973), who wrote that there are 787, with 589 of them off the west coast. He was clearly more generous (and certainly more accurate) than the figure of 453 for all the islands round the British Isles – based on the saying that there are as many islands round England as hours in the day, as many round Wales as months in the year, as many around Ireland as weeks in the year, and as many round Scotland as days in the year. This is too glib. David Walsh has visited most of the islands round Ireland in his kayak, and lists 'over 300' in his book *Oileáin*. But what is an island? Does one count reefs and skerries like the Eddystone, Wolf, Fastnet and Bishop Rocks, which project about high tide but are little more than wave-washed humps? Trinity House (which looks after lighthouses in England, Wales and the Isle of Man) has 20 'rock lighthouses', the Northern Lighthouse Board has 26, and the Commissioners of Irish Lights another ten, but these vary between towers on virtually submerged reefs to lights on substantial pieces of land such as Lundy, Skokholm and the Isle of May.

Apparently the modern sense of an island as land completely surrounded by water only came with the tentative offshore explorations of the fifteenth and

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sixteenth centuries, when the 'ocean' ceased to be regarded as an impassable barrier and became a connecting sea (Gillis, 2003). Gillian Beer has pointed out that the word *island* is made up of two elements, *isle* and *land*. *Isle* was derived from a word for water; it meant 'watery' or 'watered'. In the fifteenth century, *land* was added to it, making *is-land*, 'water-surrounded land'. She says, 'The idea of water is thus intrinsic to the word, as essential as that of earth.' Confusingly for us, the Latin word *insula* was used to describe peninsulas, land surrounded by marsh, wooded copses, blocks of buildings, even people living remote from others (Beer, 1990: 271).

A more familiar understanding of an island is reflected in a Scottish saying cited by Michael Shea in his book *Britain's Offshore Islands*: 'If a piece of land will



FIG 7.
Copinsay, an
Orkney island
that is dedicated
to the memory of
James Fisher.
(Richard Welsby)

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FIG 8. Most of the islands around the British Isles lie to the north and west, where the rocks are hard.



FIG 9. The British Isles lie on the edge of the continental shelf. Many of the surrounding seas are shallow and indicate recent (on the geological time-scale) intrusions.

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support a sheep, it is an island; if it will not, it is a rock.' Whoever said this first, it has become a formally recognised definition: the 1861 Census decreed that an island is 'any piece of solid land surrounded by water which affords sufficient vegetation to support one or two sheep, or is inhabited by man'.

But that is not enough for purists. For them, to qualify for island status the area concerned must not be connected by a bridge or permanent causeway. This would exclude Achill, Sheppey, Foulness, Anglesey and (since 1995 and 2001, respectively) Skye and Eriskay. A study by the European Union was even more restrictive, coming up with a definition that, to qualify for island status, an island must have more than 50 residents, be more than 1 km from the mainland and have no rigid link to it, and not be home to the capital of an EU state. This caused political ripples: it would exclude many of the British islands from EU funding. However, the EU denied that all they intended was to remove support from smaller tracts and formally confirmed that 'increased funding can be made available to all areas with a geographical or natural handicap'.

The Vikings were less fussy. For them, an island was one if the passage between it and the mainland was navigable by a ship with its rudder in place. This would allow Lindisfarne (Holy Island) to be recognised as an island, because its causeway is flooded for two hours each side of high water.

And should the Isle of Portland be on the list? It probably became a 'proper' island when the sea level rose in the eighth millennium BC, but a baymouth bar progressively extended from its western end, becoming a tombolo and eventually linking to the mainland of Dorset, the feature we know as the Chesil Bank (Fig. 10). The bank is occasionally breached – or certainly overtopped by wave action. In 1546, Henry VIII's antiquarian, John Leland, wrote:

The nature of this bank of Chisil is such, that as often as the wind bloweth strene at South Est so often the se betithit, and losith the bank and breakith through it. So that if this might continually blow there, this bank should soon be beaten away and the se fully enter and devide Portland, making it an isle, as surely it must in tymes past have beene ... Portland has been of auncient tyme, by all likelihod environid with the se, and yet berth the name of an isle.

Did Portland forfeit its island status when the Chesil Bank attained its present extent, or should it be regarded as an island until 1896 when a causeway was built connecting it to Weymouth? For that matter, its neighbour the Isle of Purbeck, which is now merely a tract of land around the southern side of Poole Harbour, was more like a 'proper' island in the past, but nowadays only retains a courtesy title of island – notwithstanding it qualifies as an 'isle' in the pre-modern sense



FIG 10. Chesil Bank, a 13-km-long storm beach linking the Isle of Portland to the Dorset mainland at Abbotsbury. (Unit for Landscape Modelling, University of Cambridge)



FIG 11.
The island of Seil, south of Oban, has been linked to the mainland of Scotland by this 'Bridge over the Atlantic' since 1792. (R. J. Berry)



FIG 12. Causeway and bridge linking Eriskay to South Uist. (R. J. Berry)



FIG 13. The Skye Bridge, connecting Skye to the mainland across Loch Alsh. (Martyn Gorman)

(i.e. as a promontory). Similar considerations apply to Thanet and Foulness. It seems reasonable to demote them to non-islands because they are really little more than promontories with a tidal channel on one side, but it seems over-pedantic to disallow Skye, which is virtually the archetype of many people's perception of an island, on the grounds that it has been connected to the mainland by a bridge since 1995 (Fig. 13). And what about the Uists and Benbecula, connected by causeways built in 1960 (the North Ford) and 1983 (South Ford, replacing a bridge built in 1942), or Dursey, which has had a cable-car link to mainland Ireland since 1969, or Seil, which claims to be reached by a 'bridge across the Atlantic' (albeit only about 50 m long) built in 1792?

Another definition of an island is that it must be big enough to sustain a freshwater supply, which raises the lower limit of size to around 10 ha. This would exclude Grace Darling's Longstone (4ha), Coquet Island (6ha) with most of the British (as distinct from Irish) roseate terns, and Round Island (6ha) in the Scillies. And what about Grassholm (8ha), which is home to nearly a fifth of Britain's gannets and certainly big enough to have a freshwater supply, but doesn't?

A negative definition arises from the Convention on the Law of the Sea, which disallows 'rocks that cannot sustain habitation' for the purpose of establishing exclusive economic zones. This caused a problem for the British Government when it wanted to extend its 'exclusive economic zone' further into the Atlantic in case oil was discovered there. It got over the difficulty by passing the Rockall

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FIG 14. Old and new bridges over the Swale, connecting Sheppey to north Kent. (Geograph: Penny Moyes)



FIG 15. Causeway to Lindisfarne (Holy Island), Northumberland. (Geograph: Phil Catterall)



FIG 16. Bridge from Portmagee to Valentia, County Kerry. (Geograph: Jonathan Billinger)



FIG 17. Causeway to Baleshare from North Uist. (Stewart Angus)

Act of 1972, 'to make provision for the incorporation of that part of Her Majesty's Dominions known as the island of Rockall into that part of the United Kingdom known as Scotland'. In other words, it created an island by law rather than geography. Rockall is a bare outcrop of granite, 19 m high and a mere 74 m² in area, 461 km from mainland Scotland and 430 km north of northwest Ireland.

In practice it seems unhelpful to be too rigorous in defining an island. For Eileen Molony (1951), 'a true islander should live within half a day's walk of the sea coast on all sides.' My pragmatic solution has been to use the listings given by Donald McCormick in his three volumes on the islands of England and Wales, of Scotland and of Ireland (McCormick, 1974a, 1974b, 1974c), in which he tabulates 138, 247 and 110 islands, respectively. He is not wholly consistent. For example, he has entries for island groups (such as Shetland, St Kilda or the Isles of Scilly) but then includes also the individual islands within each group. Nevertheless, McCormick's total of nearly 500 is as reasonable an estimate as any. In his comprehensive description of *The Scottish Islands*, Hamish Haswell-Smith (1996) includes all islands over 40 ha (i.e. about 100 acres). Whilst this is bigger than 'a piece of land able to support one or two sheep', in practice it identifies what most of us would call 'an island'. For the record, he lists 165 islands, ranging in size from the 'Long Island' of Lewis and Harris at 220,020 ha down to Flodday (east of Barra) and Brother Isle (in Yell Sound, Shetland) at his cut-off point of 40 ha.

In fact, the debate about which islands to include and which to leave out is largely academic from the point of view of this book because natural-history information is available for only a small minority of McCormick's 500. Species distributions have been published for the main animal and plant groups for the whole of the British Isles (although usually on a 10 km square grid basis which pays no attention to the limits of particular islands), but detailed studies are available for only a few island sites – and often only for particular groups (such as the serpentine flora of Unst, the orchids of Jersey, red deer on Rum, Soay sheep on St Kilda, gannets on the Bass Rock, hen harriers on Orkney and the Isle of Man, migrant birds on Fair Isle, the Isle of May, Cape Clear and the Isles of Scilly, etc.). Few islands have had comprehensive studies of their natural history (outstanding exceptions being St Kilda, Rum, Fair Isle, Clare Island, Lundy and Skokholm). The islands included in the following chapters (some with no more than a brief mention) are listed in Table 1. Eccentrically, I have included the Faroes group in some of the descriptions and comparisons. They are not – and never have been – British islands, but they are major insular neighbours of ours and are more isolated than we are, thus exhibiting some island traits more dramatically than the strictly British islands.

TABLE 1. The islands around Great Britain and Ireland.

The British Isles comprise two large islands (Great Britain and Ireland), a number that are so large that they are almost a scaled-down version of their large neighbour (Anglesey, Man, Sheppey, Wight), several discrete archipelagos (Channel Isles, Farnes, Outer and Inner Hebrides, Orkney, the Isles of Scilly, Shetland – also the Faroes, although these are not, and never have been, British islands), and hundreds of smaller islands ranging in size from several hundred hectares to mere rocks or skerries, often marked by nothing more than a lighthouse or buoy (e.g. Bell Rock, Eddystone, Fastnet, Skerryvore, the Smalls, Wolf).

The more significant and better known islands are listed in approximately anticlockwise order from the point where Great Britain finally separated from the continent, c.7000 BP.

The commonest derivation of the names of individual islands is given, although it should be recognised that many are disputed. They are mainly taken from Haswell-Smith (1996) and Ritsema (1999).

Island areas should be regarded as approximate. Population numbers are largely from the 2001 UK census and the 2002 Irish census.

	AREA (ha)	MAXIMUM HEIGHT (m)	POPULATION
<i>North Foreland</i>			
Sheppey (Sceapige or Island of Sheep)	9,404	50	3,7852
<i>Thames Estuary</i>			
Canvey (Cana's Island)	1,845	5	37,479
Foulness (Bird Promontory)	13,200	4	212
Osea	136	< 10	7
Ray	41	< 10	0
Hamford Water islands, including Pewit, Skipper's, Hedge-end and Horsey			
Mersea (Isle in the Mere)		21	7,182
Havergate	108	< 10	0
Scolt Head	740	< 10	0
Coquet	6		0
Farnes (15 islands at HW, 28 at LW), Megstone group to the west, Crumstone to the east			
Lindisfarne (Holy Isle)	32	19	0
		19	162

(continued)

TABLE 1. (continued)

	AREA (ha)	MAXIMUM HEIGHT (m)	POPULATION
<i>England/Scotland border</i>			
Bass Rock	7.5	107	0
Inchcolm (Columba's Is)	9	34	0
Inchkeith (Robert de Keith's Island)	28	66	0
May Island (Gull Is)	45	50	0
<i>Pentland Firth</i>			
ORKNEY			
Stroma (Island in the Tide)	375	53	0 since 1961
Swona (Pig Isle)	92	41	0 since 1974
Flotta (Flat Grassy Is)	876	58	110
South Ronaldsay (Rognvald's Is)	4,980	11	854
Burray (Broch Is)	903	80	262
Hoy (High Island) & Walls	35,380	479	392
Graemsay (Grim's Is)	409	62	27
Mainland (or Pomona)	13,413	225	15,339
Copinsay (Seal-pup Island)	152	64	0 since 1930s
Gairsay (Gárekr's Is)	240	102	3
Shapinsay (Helpful Island)	2,948	64	300
Wyre (Spear's Head)	311	32	18
Egilsay (Church Is)	650	35	37
Eynhallow (Holy Isle)	75	30	0 since 1851
Rousay (Hrolf's Is)	4,860	250	267
Auskerry (East Skerry)	85	18	0 since 1891
Stronsay (Prosperous Is)	3,275	44	358
Sanday (Sandy Is)	5,043	65	478
Eday (Isle of the Isthmus)	2,745	101	131
Faray (Sheep Isle)	180	32	0 (since 1947)
Papa Westray (Priest's Is)	918	48	65
Westray (West Is)	4,713	169	563
North Ronaldsay (Ringa's Is)	690	20	70
Sule Stack and Skerry	19	108	0
SHETLAND			
Fair Isle (Far-off Is)	830	217	86

(continued)

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TABLE 1. (continued)

	AREA (ha)	MAXIMUM HEIGHT (m)	POPULATION
Mainland	97,902	450	17,575
Mousa (Mossy Is)	180	55	0 since 1840s
Burra (Broch Is) and Trondra	1,554	81	1,038
Bressay (Bruse's Is)	2,805	226	357
Noss (Nose)	313	181	0
Foula (Bird Is)	1,380	518	31
Papa Stour (Big Priests' Is)	828	87	23
Whalsay (Whale Is)	1,970	119	1,034
Out Skerries	218	53	76
Muckle Roe	1,813	169	104
Fetlar (Fat Land)	4,078	158	81
Yell (Barren)	21,211	205	957
Unst	12,068	284	720

FAROES

(an independent nation, allied to Denmark, but an important island group beyond and adjacent to the British Islands)

Suðuroy	16,600	610	5,064
Stóra and Líttla Dímun	265	396	5
Skuvoy	1,000	392	90
Sandoy	11,210	479	1,700
Nólsoy	1,028	371	320
Vágar	17,790	722	2,937
Mykines	1,028	560	30
Streymoy	37,347	790	20,000
Eysturoy	28,633	882	10,405
Kalsoy	3,087	787	130
Kunoy	3,546	831	100
Borðoy	9,490	755	4,900
Viðoy	4,100	841	600
Svinoy	2,735	587	60
Fugloy	1,118	620	60

Cape Wrath

Sula Sgeir (Solan Goose Rock)	21	68	0
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(continued)

TABLE 1. (continued)

	AREA (ha)	MAXIMUM HEIGHT (m)	POPULATION
Rockall (Sea Rock of Roaring)	0.1	19	0
North Rona (Isle of Seals)	109	108	0 since 1840s
St Kilda	846	430	0 since 1930
Handa (Dog Island)	363	123	0 since 1851
OUTER HEBRIDES			
(Havbredey, isles on the edge of the sea)			
Lewis (Marshy) & Harris (Hilly)	220,020	799	19,918
Scalpay (Scallop Island)	653	104	322
Scarp (Sharp Island)	1,045	308	0 since 1971
Taransay (Taran's Island)	1,475	267	0 since 1974
Shiantes (Enchanted Isles)	225	160	0 since 1901
Flannans (St Flannan's Is)	92	8	0
Pabbay (Priest Island)	820	196	0 since 1970s
<i>Sound of Harris</i>			
Berneray (Björn's Island)	1,010	93	136
North Uist	29,875	348	1,320
Benbecula (Small Mount of the Fords)	8,203	124	1,249
Monachs or Heisker (Monk Islands)	577	19	0 since 1931
South Uist	36,519	606	1,818
Eriskay (Eric's Isle)	703	185	69
Barra (St Barr's Isle) and Vatersay	6,835	383	1,172
Mingulay (Big Island)	635	273	0 since 1912
Berneray or Barra Head (Bjorn's Isle)	185	193	0 since 1931
INNER HEBRIDES			
Skye (Cloudy or Misty Isle)	16,562	993	9,251
Raasay (Roe-deer Island)	6,405	443	194
Soay (Sheep Is)	1,063	141	7
Scalpay (Scallop Is)	2,483	392	7
Rum (Wide Is)	10,864	812	22
Muck (Isle of Pigs)	559	137	20
Eigg (Notched Is)	3,049	393	133
Canna (Porpoise Is)	1,314	210	20

(continued)

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TABLE 1. (continued)

	AREA (ha)	MAXIMUM HEIGHT (m)	POPULATION
Tiree (Land of Corn)	7,834	141	770
Coll	7,685	104	113
Summer Isles	473	122	0
Treshnish Isles	208	103	0 since 1824
Kerrera (Kjarbar's Is)	1,214	189	42
Mull (Rounded Hill)	87,794	966	2,696
Iona	870	100	125
Staffa (Stave or Pillar Island)	33	42	0 since 1800
Lismore (Great Garden)	2,351	127	146
Seil	1,329	146	560
Luing (Heather Isle)	1,543	94	220
Colonsay (Columba's Isle) & Oronsay	4,617	143	58
Jura (Deer Isle)	36,692	785	188
Islay (Green Isle)	61,956	491	3,457
Gigha (God's Is)	1,395	100	233
Bute (Corn Island)	12,217	278	7,228
Cumbræ (Island of the Welsh-speakers)	1,168	127	1,434
Arran (High Place)	43,201	874	5,058
Ailsa Craig (Fairy Rock)	104	338	0

North Channel between Scotland and Ireland

Rathlin	1,400	136	113
Sheep	4		0
Skerries (Reefs)	200		0
Inishtrahull (Island of the Distant Shore)	46	36	0 since 1928
Tory (Place of Towers)			133
Inishsirrè (Eastern Island)	97		
Gola (Forked)	203		0 since 1966
Owey (Caves)	124		0 since 1970s
Arranmore (Ridged Is)	2,599	228	543
Rutland (from the Duke of Rutland)			0 since 1960s
Inishfree (Is of Heather)			0 since 1951
Inishmurray (St Murray's Is)	85	20	0 since 1948
Coney (Rabbit Is)		13	6
Bartagh	149		0 since 1950s

(continued)

TABLE 1. (continued)

	AREA (ha)	MAXIMUM HEIGHT (m)	POPULATION
Inishkeas (St Ciath's Islands)	381		0 since 1930
Achill	14,760	671	2,620
Westport (or Clew) Bay islands	10		27
Clare (after St Clare)	1,555	462	127
Inishturk		191	70
Inishbofin (Island of the White Cow)	971	81	178
Inishark		100	0 since 1960
Omey (St Feichin's Seat)	216	26	4
Mweenish	248	23	146
Annaghvaan	126	15	121
Lettermore	907	117	497
Gorumna	4,144	53	1,015
Lettermullen	324	36	219
Furnace (Outer Is)		27	56
Inishtravin	78		1
Inisherk	29		24
Mutton			0
ARAN ISLANDS (Ridged Islands):			
Inisheer (East Is)	583	61	262
Inishmaan (Middle Is)	907	75	187
Inishmore (Large Is)	3,108	123	831
Blaskets	735	292	0 since 1953
Valentia	2,590	266	690
Skellig Michael (Splintered Is)	40	218	0
Little Skellig	7	136	0
Dursey			6
Fastnet		30	0
Roaringwater Bay Islands			
Sherkin	518		129
Cape Clear (St Kiernan's Is)	162	159	129
Saltees (Salt Is)	127		0
Bull Island	3		17
Lambay (Lamb Is)	250	127	6
Ireland's Eye			

(continued)

22 · ISLANDS

TABLE 1. (continued)

	AREA (ha)	MAXIMUM HEIGHT (m)	POPULATION
Strangford Lough Islands	71		
Copeland	202		o since 1940
<i>Irish Sea</i>			
Isle of Man (a Celtic sea god)	58,793	621	76,315
Calf of Man	249	128	
Walney	1,299		11,388
Hilbre Islands	10	o	
Puffin Island	27	55	o
Anglesey (Isle of the Angles, or Strait Island)	71,500	178	69,149
Bardsey (Bardr's Island)	180	168	58
Cardigan Island	16	52	o
Ramsey (Raven's Isle)	265	136	3
Skomer (Cloven Island)	293	79	2
Skokholm (Island in the Sound)	98	50	2
Grassholm (Grass Island)	8	42	o
The Smalls	2		o
Caldey	183	183	60
<i>Severn Estuary</i>			
Lundy (Puffin Island)	405	142	142
Steepholm	60	78	o
Flatholm	20	25	o
ISLES OF SCILLY: one Island (Ennor) until c. AD 1000			
St Mary's	650	49	1,666
Tresco	298	37	180
St Martin's	223	47	142
Bryher	143	42	100?
Samson	49	42	o
Tean	16	33	o
White Isle	15	29	o
Annet	20	15	o
St Agnes and Gugh	175	24	165

(continued)

TABLE 1. (continued)

	AREA (ha)	MAXIMUM HEIGHT (m)	POPULATION
<i>Land's End</i>			
Drake's Island	3		0
Poole Harbour islands (7 islands)	248		
Brownsea (Bruno's Island)	203		211
Wight	38,100	241	124,577
<i>English Channel</i>			
CHANNEL ISLANDS			
(Guernsey becomes island c.9200 BP; Jersey separates from France c.5800 BP)			
Jersey	11,630	143	87,186
Guernsey (Green Island)	6,505	110	59,807
Herm and Jethou	182	98	97
Sark	520	105	591
Alderney	1,554	90	2,294



FIG 18.
Rough island seas. (Richard Welsby)

On the other hand, I have resisted the temptation to include Heligoland (or Holy Island, allegedly named by St Willibrod when he was shipwrecked there in 699 while on an evangelistic expedition from the Lindisfarne [Holy Island] monastery), which lies in the Heligoland (or German) Bight 70km from the mouth of the rivers Weser and Elbe and about 500 km east of Great Yarmouth. It was a British colony from 1807 until 1890, when Prime Minister Lord Salisbury exchanged it for German East Africa to the displeasure of Queen Victoria (Drower, 2002). It is a 60ha sandstone outcrop with 60 m cliffs. The population is around 1,700; it is the only German 'high sea' island.

However, the case for including Heligoland would not be imperial or colonial, but that it has had a significant place in the history of British natural history. From 1843 to 1887 an amateur birdwatcher, Heinrich Gätke, kept daily records of the birds, especially migrant numbers on the island, revealing much new and unexpected information about bird biology and making the island a mecca for ornithologists from all over the world (Gätke, 1895). In the nineteenth century, little was known about the distribution and movements of birds around Britain and Ireland. In an attempt to remedy this, John Harvie-Brown (*see* page 318) and John Cordeaux wrote in 1869 to the keepers on 100 lighthouses to ask for information about birds attracted to the lights. Two-thirds replied. Encouraged by this, Harvie-Brown and Cordeaux persuaded the father-figure of British ornithology, Alfred Newton, to chair a group under the auspices of the British Association for the Advancement of Science, consisting of themselves, Alexander More and R. M. Barrington from Ireland, James Hardy from Berwickshire, and P. M. C. Kermode from the Isle of Man to enquire more comprehensively. Kermode was soon replaced by William Eagle Clarke, a young museum curator from Leeds,



FIG 19. William Eagle Clarke (1853–1938). (Fair Isle Bird Observatory)

soon to move to the Royal Scottish Museum in Edinburgh. Eagle Clarke increasingly took on the work of collation and analysis for the committee, with Barrington dealing with the Irish birds. This work reached its climax with Eagle Clarke's two-volume *Studies in Bird Migration* (1912), which laid the basis for systematic recording of migrants around our islands.

Meanwhile a permanent observatory had been established on Heligoland in 1909, building on Gätke's dedicated and regular censuses. Eagle Clarke (Fig. 19) identified Fair Isle as 'the British Heligoland'; he was a frequent visitor to Fair Isle from 1905 until 1921. Inspired by his example, the Misses Rintoul and Baxter began in 1907 to record on the Isle of May every spring and autumn (and, incidentally, to question the then assumption that migration was channelled along well-defined routes, leading them to work towards the modern idea of weather-dependent 'drift migration'). Then, in 1933, W. B. Alexander, appointed three years earlier as Director of the Oxford Bird Census (which became the British Trust for Ornithology), took a group to Heligoland to learn about the techniques used there, which included the large funnel trap familiar to all modern bird-observatory visitors as the 'Heligoland trap'; it was a development of traps used by the islanders to catch birds for food. One of Alexander's party was Ronald Lockley, who, on his return to Skokholm, erected his own version of a Heligoland trap in his vegetable garden. The following autumn he shipped his flock of sheep and farming equipment off the island, sealing his shift from struggling farmer to founder of the first British bird observatory. He visited Heligoland again in October 1936, and on his first day there he ringed 752 migrants (see *I Know an Island*, 1938).

ISLANDS AND BIOLOGY

Islands have enormous benefits for biological research because of their relatively uncomplicated ecology (usually fewer species than in mainland situations and hence fewer competitors or predators, little immigration or emigration – meaning that the fate of all individuals can in principle be determined), often extreme environments, and even the possibility of 'replicates' on different islands. In the context of the British and Irish islands, we can ignore the more extreme isolation of oceanic islands (like Ascension, Tristan da Cunha, Easter Island, Hawaii, etc.) and some of the longer-term effects of island life, since biological life on our islands dates almost entirely from post-Pleistocene times. (For a review of these wider problems, see Whittaker, 1998.) Notwithstanding, to describe the factors that determine and limit the animals and plants on the 500

British islands (never mind their parent islands of Great Britain and Ireland), we have to draw together a host of factors – geology, history, isolation and situation, climate and oceanicity, human impact, genetic chance and adaptation. We can generalise about the effects of these factors, but we are still left with many uncertainties and surprises – which provide many of the lures and importance of the islands.

The recognition of the potential of islands for science can be said to have started with Thomas Wollaston's (1822–78) work on Madeira, quickly followed by Alfred Russel Wallace (1823–1913) and Joseph Hooker (1817–1911), but modern studies were really begun by Charles Elton (1900–91). Whilst still an undergraduate at Oxford University, Elton went as an assistant to Julian Huxley on expeditions to Spitsbergen and Bear Island (1921, 1923, 1924). He was captivated by the simplicity of the food web(s) there. At the behest of Huxley, he wrote in 1927 (allegedly in 85 days) the book *Animal Ecology*, which became one of the founding texts of ecology (and a seminal document for 'new naturalists'). Years later, he expounded some of his ideas relevant to islands in a series of broadcast talks and then expanded them into a book, *The Ecology of Invasions by Animals and Plants* (1958). Meanwhile, following Elton's lead, many islands have become sites for classic studies of ecology. Some of these are described in this book: grey seals on North Rona, Soay sheep on St Kilda, red deer on Rum, meadow brown butterflies in the Scillies, and others.

In this treatment, I have confined myself to salt-water islands, not because islands in fresh or brackish water (such as those in the Lake District or Lough Neagh) or biological isolates (on mountain tops or inner-city parks) lack biological interest, nor because their characteristics and study are different to those of islands in the sea. My restriction is arbitrary, because the biological consequences of non-marine islands are not markedly different to marine ones. However, it is for the experts of the Cairngorm plateau, the Shropshire meres, the sewage beds on the outskirts of many towns, ancient churchyards, or Buckingham Palace gardens to insert their own examples into the description and results of islandisation as described in the chapters which follow.

References and Further Reading for Chapter 1 are listed on page 341.