

## Global Change Data Encyclopedia

# Shetland Islands, United Kingdom

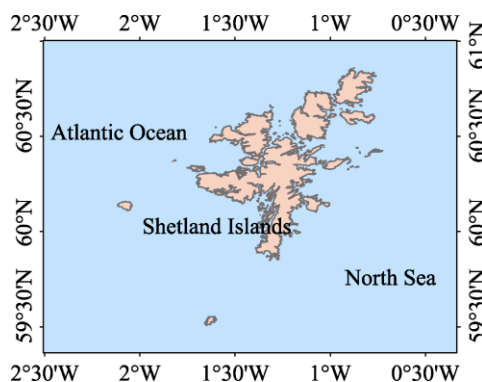
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**Keywords:** Shetland Islands; Scotland; United Kingdom; Atlantic Ocean; data encyclopedia

The Shetland Islands of Scotland is located from 59°30'24"N to 60°51'39"N, from 0°43'25"W to 2°7'3"W, between the North Sea and the Atlantic Ocean (Figure 1, Figure 2). Shetland Islands extend 157 km from the northernmost Out Stack Isle to the southernmost Fair Isle. The Islands are 300 km to the west coast of Norway in its east, 291 km to the Faroe Islands in its northwest and 43 km to the North Ronaldsay in its southwest<sup>[1-2]</sup>. The Mainland is the main island in the Shetland Islands, and 168 km to the Scotland in its south.

The Shetland Islands are consisted of 1,018 islands and islets, in which the area of each island or islet is more than 6 m<sup>2</sup>. The total area of the Shetland Islands is 1,491.33 km<sup>2</sup>, and the coastline is 2,060.13 km long<sup>[1]</sup>. There are only 23 islands with each area more than 1 km<sup>2</sup> in the Shetland Islands (Table 1), accounting for 2% of the total number of islands and 98.67% of the total area of the islands. They are Mainland Island, Yell Island, Unst Island, Fetlar Island, Bressay Island, Whalsay Island, Muckle Roe Island, Foula Island, etc.<sup>[3-4]</sup>. Among which, the Mainland Island is the biggest island with area of 960.30 km<sup>2</sup> and coastline of 962.70 km. There are 944 islands with each area between 100 m<sup>2</sup>–1 km<sup>2</sup>, accounting for 93% of the total number of the islands and 1.33% of the total area of the islands. There are 51 islands or isles with each area less than 100 m<sup>2</sup>, accounting for 5% of the total number of the islands, and the total area



**Figure 1** Geo-location of Shetland Islands (ArcGIS .shp data format)

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[2] Liu, C., Shi, R. X. Shetland Islands [DB/OL]. Global Change Research Data Publishing & Repository, 2017. DOI: 10.3974/geodb.2017.01.05.V1.

is negligible (only 3,074 m<sup>2</sup>, Table 2).

**Table 1** List of Islands of Shetland Islands with area more than 1 km<sup>2</sup>[1]

Name of island	Geo-location	Central location	Area (km <sup>2</sup> )	Coastline (km)
Mainland Is.	59°51'5"N-60°38'16"N, 1°42'15"W-1°2'51"W	60°17'43"N, 1°20'47"W	960.30	962.70
Yell Is.	60°28'58"N-60°44'3"N, 1°12'19"W-0°58'52"W	60°36'23"N, 1°5'37"W	212.92	187.23
Unst Is.	60°40'11"N-60°50'46"N, 0°59'4"W-0°45'28"W	60°45'31"N, 0°52'56"W	121.93	123.78
Fetlar Is.	60°33'43"N-60°38'2"N, 0°56'57"W-0°45'54"W	60°36'41"N, 0°51'26"W	41.47	61.017
Bressay Is.	60°6'9"N-60°11'22"N, 1°8'52"W-1°2'43"W	60°8'55"N, 1°5'40"W	27.99	40.340
Whalsay Is.	60°19'34"N-60°23'6"N, 1°2'20"W-0°53'59"W	60°21'19"N, 0°58'45"W	19.92	36.36
Muckle Roe Is.	60°20'41"N-60°23'29"N, 1°28'38"W-1°22'44"W	60°22'0"N, 1°25'31"W	17.44	32.26
Foula Is.	60°6'33"N-60°9'30"N, 2°7'3"W-2°2'23"W	60°8'12"N, 2°4'29"W	13.45	20.96
Papa Stour Is.	60°18'54"N-60°20'47"N, 1°44'17"W-1°39'39"W	60°19'53"N, 1°41'60"W	8.39	34.630
Fair Isle	59°30'41"N-59°33'15"N, 1°39'38"W-1°35'48"W	59°31'60"N, 1°37'48"W	8.31	29.90
West Burra Is.	60°2'27"N-60°7'6"N, 1°22'44"W-1°18'33"W	60°4'46"N, 1°20'26"W	7.43	34.78
East Burra Is.	60°2'24"N-60°5'50"N, 1°20'30"W-1°17'46"W	60°4'27"N, 1°19'5"W	5.09	19.85
Vementry Is.	60°18'40"N-60°20'29"N, 1°29'29"W-1°26'17"W	60°19'37"N, 1°27'53"W	3.78	24.74
Noss Is.	60°7'52"N-60°9'17"N, 1°2'51"W-1°0'10"W	60°8'39"N, 1°1'16"W	3.37	11.75
Vaila Is.	60°11'27"N-60°12'36"N, 1°36'24"W-1°33'42"W	60°12'7"N, 1°35'3"W	3.10	10.23
Hascosay Is.	60°35'48"N-60°37'10"N, 1°0'54"W-0°58'5"W	60°36'41"N, 0°59'30"W	3.03	10.91
Trondra Is.	60°5'56"N-60°7'55"N, 1°18'39"W-1°16'23"W	60°6'56"N, 1°17'33"W	2.89	11.05
Uyea Is.	60°39'34"N-60°40'46"N, 0°55'12"W-0°52'32"W	60°40'14"N, 0°53'55"W	2.42	9.42
Papa Little Is.	60°19'16"N-60°20'34"N, 1°24'22"W-1°22'31"W	60°19'57"N, 1°23'25"W	2.18	8.65
Mousa Is.	59°59'21"N-60°0'31"N, 1°11'37"W-1°9'28"W	59°59'48"N, 1°10'32"W	1.88	9.96
Housay Is.	60°24'34"N-60°25'59"N, 0°47'57"W-0°45'10"W	60°25'20"N, 0°46'21"W	1.80	14.15
West Linga Is.	60°21'2"N-60°22'14"N, 1°2'45"W-1°1'31"W	60°21'40"N, 1°2'11"W	1.30	6.28
Hildasay Is.	60°8'17"N-60°9'10"N, 1°22'10"W-1°21'1"W	60°8'45"N, 1°21'36"W	1.06	6.04
Total			1,471.44	1,706.96

**Table 2** List of Islands of Shetland Islands with area less than 1km<sup>2</sup><sup>[1]</sup>

Name of island	Geo-location	Central location	Area (km <sup>2</sup> )	Coastline (km)
Balta Is.	60°44'23"N-60°45'38"N, 0°47'60"W-0°47'4"W	60°44'43"N, 0°47'32"W	0.97	8.06
Bigga Is.	60°29'9"N-60°30'8"N, 1°12'8"W-1°10'52"W	60°29'37"N, 1°11'28"W	0.86	4.79
Samphrey Is.	60°27'42"N-60°28'31"N, 1°9'48"W-1°8'19"W	60°28'2"N, 1°9'5"W	0.81	5.15
Oxna Island	60°6'41"N-60°7'24"N, 1°22'42"W-1°21'32"W	60°7'4"N, 1°22'11"W	0.78	4.30
South Havra Is.	60°1'9"N-60°1'52"N, 1°22'3"W-1°20'41"W	60°1'33"N, 1°21'22"W	0.67	8.10
Linga Is.	60°21'9"N-60°21'41"N, 1°22'4"W-1°21'12"W	60°21'26"N, 1°21'38"W	0.63	2.98
Papa Is.	60°7'7"N-60°7'37"N, 1°21'39"W-1°20'3"W	60°7'16"N, 1°20'51"W	0.61	6.37
Bruray Is.	60°25'18"N-60°25'51"N, 0°45'33"W-0°44'23"W	60°25'35"N, 0°44'57"W	0.59	4.88
Lamba Is.	60°30'38"N-60°31'13"N, 1°17'58"W-1°16'57"W	60°30'57"N, 1°17'29"W	0.52	3.55
Linga Island	60°39'34"N-60°40'22"N, 0°59'21"W-0°58'6"W	60°39'44"N, 0°58'25"W	0.51	4.21
Uyea Isle	60°36'55"N-60°37'20"N, 1°26'16"W-1°24'58"W	60°37'7"N, 1°25'41"W	0.46	5.40
Brother Isle	60°30'38"N-60°31'7"N, 1°14'9"W-1°13'6"W	60°30'52"N, 1°13'37"W	0.46	3.33
Grunay Is.	60°25'3"N-60°25'31"N, 0°45'6"W-0°43'56"W	60°25'16"N, 0°44'27"W	0.35	4.46
East Linga Is.	60°20'15"N-60°20'42"N, 0°53'36"W-0°52'46"W	60°20'27"N, 0°53'12"W	0.28	3.28
Huney Is.	60°43'51"N-60°44'20"N, 0°48'57"W-0°48'22"W	60°44'5"N, 0°48'40"W	0.23	2.95
Cheynies Island	60°7'41"N-60°7'59"N, 1°22'49"W-1°22'10"W	60°7'50"N, 1°22'20"W	0.17	2.02
Lunna Holm Is.	60°27'7"N-60°27'24"N, 1°2'45"W-1°2'21"W	60°27'15"N, 1°2'33"W	0.14	1.45
Ramna Stacks Is.	60°39'4"N-60°39'16"N, 1°18'23"W-1°17'58"W	60°39'9"N, 1°18'11"W	0.10	1.44
Bound Skerry Isle	60°25'22"N-60°25'33"N, 0°43'48"W-0°43'25"W	60°25'28"N, 0°43'38"W	0.07	1.26
Out Stack Isle	60°51'4"N-60°51'17"N, 0°53'24"W-0°53'6"W	60°51'11"N, 0°53'16"W	0.05	1.83
St. Ninian's Isle	59°58'18"N-59°58'26"N, 1°21'58"W-1°21'40"W	59°58'22"N, 1°21'50"W	0.05	0.81
Muckle Flugga Isle	60°44'23"N-60°45'38"N, 0°47'60"W-0°47'4"W	60°51'4"N, 0°53'33"W	0.03	1.38
Dore holm Is.	60°29'9"N-60°30'8"N, 1°12'8"W-1°10'52"W	60°28'10"N, 1°36'10"W	0.03	0.73
Muckle Skerry Isle	60°27'42"N-60°28'31"N, 1°9'48"W-1°8'19"W	60°26'24"N, 0°51'45"W	0.03	0.75

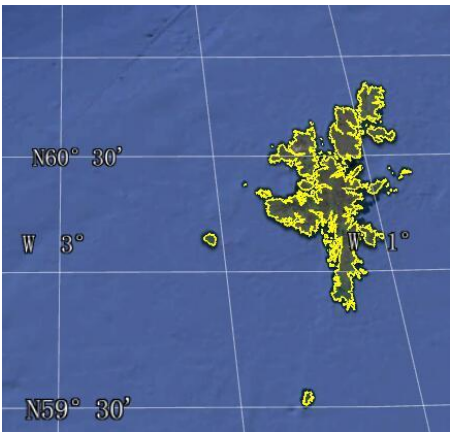
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Name of Island	Geo-location	Central location	Area (km <sup>2</sup> )	Coastline (km)
Muckle Is.	60°51'15"N–60°51'23"N, 0°53'13"W–0°53'0"W	60°51'19"N, 0°53'6"W	0.03	0.87
Ve Skeries Isle	60°22'4"N–60°22'11"N, 1°49'41"W–1°49'29"W	60°22'8"N, 1°49'35"W	0.02	0.68
Brough Holm Is.	60°43'51"N–60°43'58"N, 0°57'60"W–0°57'45"W	60°43'54"N, 0°57'53"W	0.02	0.68
Forewick Holm Is.	60°19'5"N–60°19'10"N, 1°39'56"W–1°39'45"W	60°19'8"N, 1°39'51"W	0.02	0.55
Total Others			10.40	272.31
Shetland Islands	59°30'24"N–60°51'39"N, 2°7'3"W–0°43'25"W		1,491.33	2,060.13

In the Shetland Islands, there are three airports in Mainland Island, including one large airport in the south and two small airports in the central and northwest. There are small airports on Unst and Papa Stour Island, respectively, which provide convenient access inside and outside the islands<sup>[5]</sup>.

The dataset is developed based on the Google Earth images and the thematic maps of Scotland. The dataset is archived in both .kmz<sup>[6]</sup> and .shp<sup>[7]</sup> formats, it is consisted of 15 data files with data size of 20.4 MB (compressed in 2 data files, 8.58 MB).



**Figure 2** Geo-location of Shetland Islands (Google Earth .kmz format)

**References**

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**Data Computing Environment**

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[7] ESRI. ArcGIS campus license of Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.

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