

Bovine TB Epidemiology Report for the Isles of Scilly (2011 – 2018)

Background

The Isles of Scilly are a small archipelago of islands situated 28 miles south west of the Cornish peninsula. Five of the islands are populated and they have their own independent council. At the present time there are 22 herds registered with approximately 300 cattle between them (304 on 1/1/19). There is a small amount of trade between the islands (designated Low Risk Area) and the mainland which is part of the High Risk Area (HRA). All cattle moving on from the mainland since 1/4/16 have been eligible for post movement TB testing and, as most travel from the HRA, they will have been subjected to pre-movement testing too.

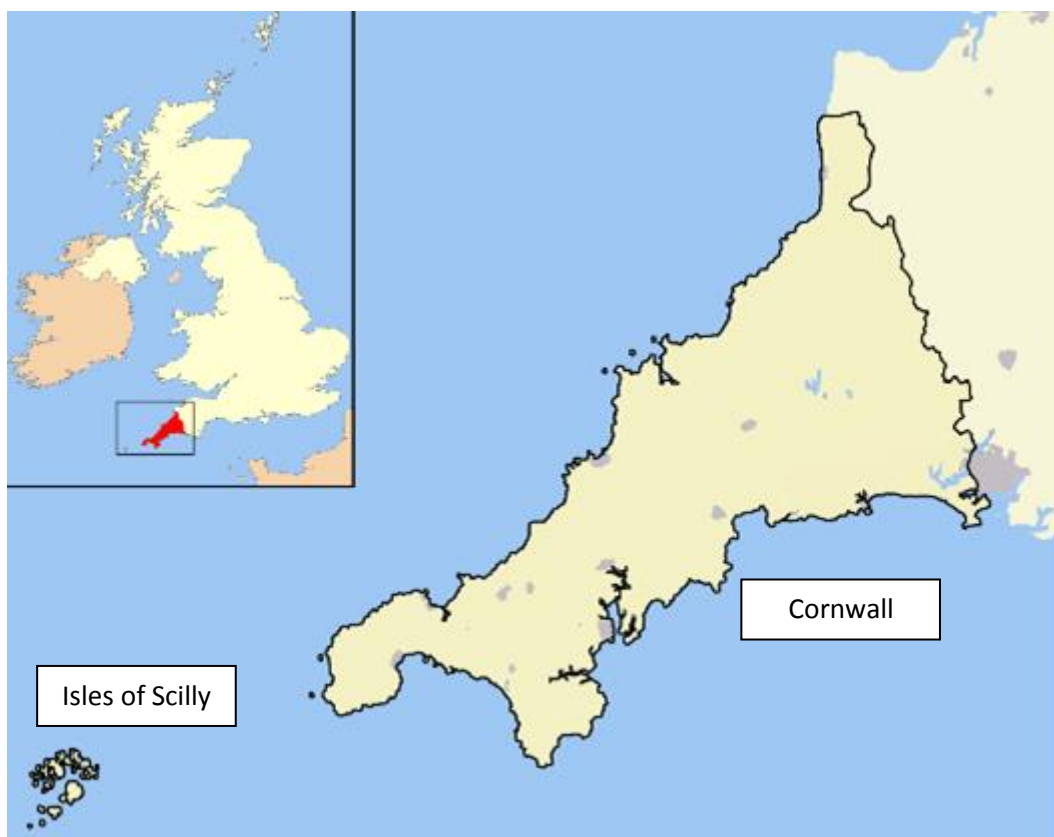


Figure 1 – Geographic location of the Isles of Scilly off the coast of Cornwall in the Southwest of England

The following data is presented as evidence of absence of bovine tuberculosis in the Islands, which supports their inclusion in the Low Risk Area of England (LRA) in spite of their geographical location in the Southwest of England.

Data

The maps below show the herd and cattle density distribution over the five inhabited islands of the archipelago:

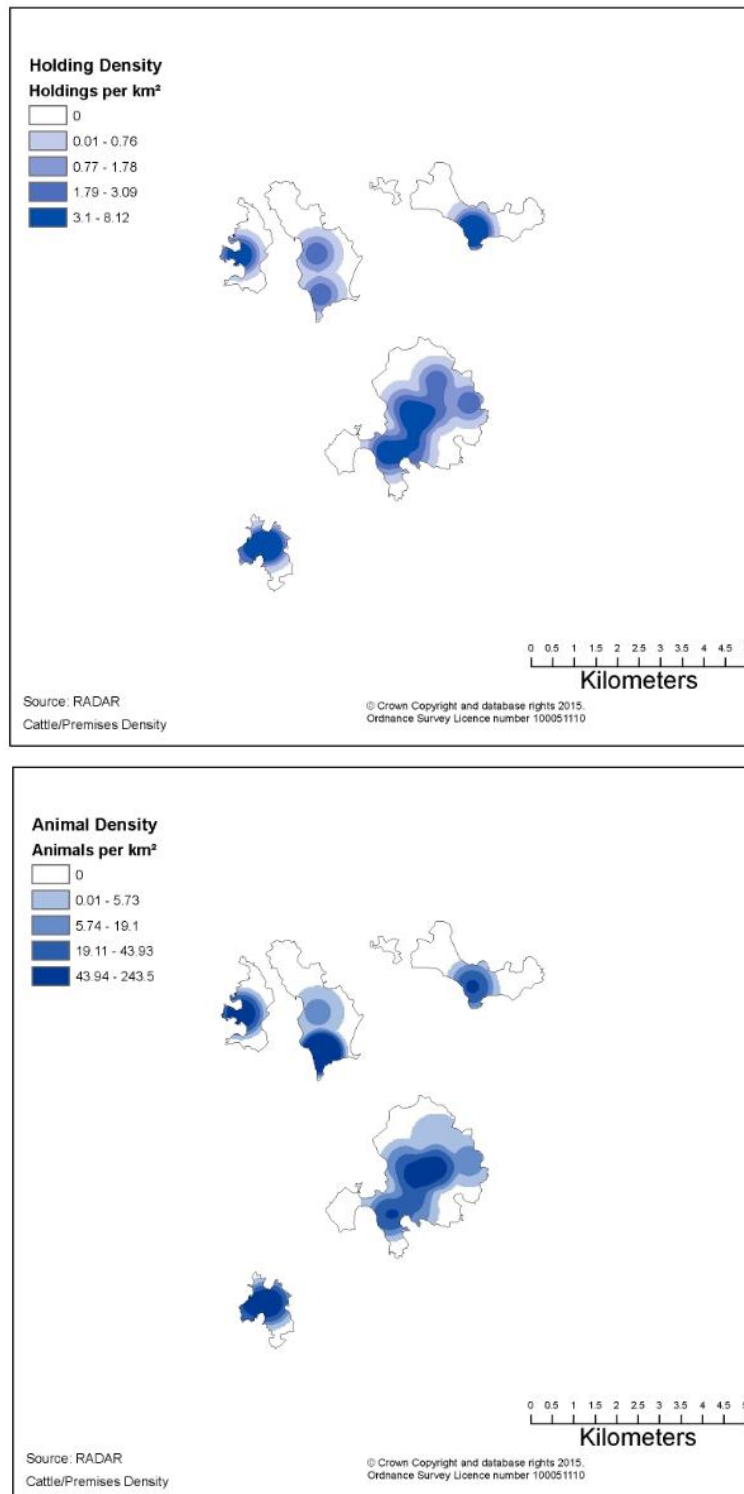


Figure 2 – Density of cattle holdings (top) and animals (bottom) at 1 January of 2019. Please note that the scale used to produce both maps has been customised to account for their relatively small size.

The herd-level bovine TB statistics are presented in the table below for the past eight years:

Herd-level statistics for Isles of Scilly	2011	2012	2013	2014	2015	2016	2017	2018
(a) Total number of cattle herds live on Sam at the end of the reporting period	19	20	21	22	24	23	23	22
(b) Total number of cattle herds subject to annual TB testing at the end of the reporting period (any reason)	0	0	0	0	1	1	1	0
(c) Total number of herd tests carried out in the period	4	7	4	7	10	6	7	8
(d) Total number of OTF cattle herds TB tested during the period for any reason	4	7	4	7	10	6	7	8
(e) Total number of OTF cattle herds at the end of the report period (i.e. herds not under any type of TB2 restrictions)	19	20	20*	22	24	23	23	22
(f) Total number of cattle herds that were not under restrictions due to an ongoing TB breakdown at the end of the report period.	19	20	21	22	24	23	23	22
(g) Total number of new breakdowns detected in cattle herds during the report period	0	0	0	0	0	0	0	0
(h) Slaughterhouse cases (tuberculous carcasses) reported at routine meat inspection in the report period	0	0	0	0	0	0	0	0
(i) New confirmed (<i>M. bovis</i> positive) incidents in non-bovine species detected during the report period	0	0	0	0	0	0	0	0

(*) = one herd was temporarily put under TB restrictions (OTF status suspended) because of an overdue TB test

Most of the herds are tested every four years and 'temporal smoothing' has been applied to maximise the chances of disease detection (i.e. one quarter of the herds are tested each year). This year, 148 cattle were tested in 8 herd tests.

The three herds subjected to annual TB testing in 2015, 2016 and 2017 were newly formed.

There have been no reactors, inconclusive reactors or slaughterhouse cases disclosed during the reporting period and in fact none have been recorded in our national database, which goes back to 1996. In other words, the incidence and prevalence of infected herds has been zero. There have also been no cases of *M. bovis* infection in other species reported.

Discussion

The cattle herds on these islands are mostly very small. The herd size statistics show that only one herd contains > 50 cattle. This is a medium-sized beef herd of

approximately 100 cattle on the island of Tresco. This minimises the likelihood of acquiring TB infection as size is a known major risk factor. However, the largest mitigating factor is likely to be the lack of known wildlife reservoirs of *M. bovis* infection in the islands. Rats are ubiquitous on the islands and St Marys (the largest island) has a large number of feral hedgehogs, but there are no foxes, badgers or other mustelids present. Rabbits, mice and shrews are found on the islands, but squirrels are absent.

It would appear that cases of TB in cattle are only likely to occur if they are translocated from the mainland, either through cattle movements or other in-contact species. In 2018, there were 10 cattle movements onto 7 Scilly premises. However, 5 of these were internal movements within the islands due to 2 local breeding bulls and a suckler cow. Five animals were purchased from 3 Cornish (07) herds and 1 Devon (10) herd. These animals would have been subject to pre and post movement testing requirements.

The table below shows the numbers of recorded movements of cattle onto Scilly premises over the past eight years:

Year	Number of Animals
2011	25
2012	20
2013	22
2014	26
2015	40
2016	42
2017	11
2018	10
Grand Total	196

There is some passive surveillance for TB as fat and cull animals move to the mainland for slaughter in various Cornish abattoirs. In addition, some youngstock are sold as yearlings through Truro market, or direct to Cornish herds each year.

Conclusion

The relative isolation, coupled with an absence of an infected wildlife reservoir, render the cattle herds on the Isles of Scilly at a very low risk of becoming infected. They also satisfy the qualifying criteria to be eligible for Officially Tuberculosis Free status. That is, there have been no cases of disease in the past eight years (zero incidence and prevalence).