



# Recreation and the environment on the Isles of Scilly

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## Summary

There can often be challenges in balancing wildlife conservation with recreation use and it is not always straightforward to reconcile the two. This report has been commissioned by the Isles of Scilly Wildlife Trust as an initial scoping study to explore the potential interactions between recreation and nature conservation around the Isles of Scilly.

The islands and surrounding waters of the Isles of Scilly support a variety of habitats that in turn hold a range of species, many of which are now absent or very rare on the mainland. The islands also draw visitors for the scenery, beaches, boating and water-sport opportunities, heritage, and wildlife; tourism is a mainstay of the local economy. The Isles of Scilly are special, and it is that special nature that both draws visitors and is also at risk of being harmed by recreation use. In the long-term it is essential to understand any risks and ensure that they are addressed, for the benefit of both people and wildlife.

Views were sought on particular concerns about recreation impacts and any potential solutions that might be relevant to balance recreation and wildlife, from a range of local residents, stakeholders and visitors through workshops, meetings and phone calls.

From these we identified a wide range of issues and potential concerns, but highlight the following as the main impacts and risks from recreation use identified:

- Disturbance to breeding birds including seabirds and beach-nesting waders on some beaches on the main islands and also remote uninhabited islands. Disturbance risks for seabirds extend to loafing birds on the water. Scilly supports a suite of species which are now very rare or have disappeared from southern England, and are subject to a range of pressures, including disturbance (Verhulst, Oosterbeek and Ens, 2001; Watson, Bolton and Monaghan, 2014; Liley *et al.*, 2021).
- Damage to seagrass beds, particularly from anchoring. The seagrass beds of the Isles of Scilly are some of the best in the UK, it is possible that recent decline is linked to recreational activity (see Howard-Williams, 2022 for review).
- Risk of fire, with risks to heathland and dune habitats, plus a range of rare species. This risk is likely to increase over time with climate change.
- Risk of the spread of rats and other non-native species to islands otherwise currently clear of them. These risks may change with time if rats are eradicated from more islands. Such spread poses potential consequences for a range of species, particularly seabirds.
- Disturbance to Grey Seal. Grey Seal are increasing markedly around the coast, and it has been suggested it is only Harbour Seal *Phoca vitulina* (Skeate and Perrow, 2008) that are vulnerable to disturbance. Despite the increasing population of Grey Seals, there are certainly welfare issues<sup>1</sup> (Bellman *et al.*, 2019) and seals warrant inclusion.

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<sup>1</sup> seals can be injured when they 'stampede' off rocks or tombstone into the water

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- Disturbance and boat collision risk to whales, given the now regular occurrence of increasing numbers of large whales close to the islands.

Stakeholders identified a wide range of potential solutions, many of which are positive for recreation users and provide scope to enhance visitor's experience, enjoyment and/or understanding, while affording better protection for wildlife.

We make a series of recommendations that are based around standard frameworks for visitor management in protected areas. These revolve around reaching consensus on the key areas of concern, some additional data gathering, and then setting out clear zones within which some targets are set as to when concerns are triggered and what the real risks are. Any future management can then be agreed and targeted as required. The zones and targets will ensure recreation providers, visitors, residents, and others can be clear as to what behaviours are acceptable and where, and at what point further actions or change might be triggered. This would fit with, and build on, the existing approach where some areas (such as islands with nesting seabirds) are already mapped and flagged as areas for people not to visit.

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We are also grateful to the 27 attendees at the three workshops held on St Mary's and St Martin's (and to Jaclyn Pearson and Paul St Pierre in their roles as facilitators), and to all those who contributed subsequently via one-to-one conversations or e-mail exchanges, for their time and input into the report.

Funding for this work has come from the Isles of Scilly National Landscape Partnership (Defra support, match-funded by the Council of the Isles of Scilly, Tresco Estate, Duchy of Cornwall, and the Isles of Scilly Wildlife Trust) and from the RSPB.

## 1. Introduction

- 1.1 This report has been commissioned by the Isles of Scilly Wildlife Trust and the Isles of Scilly National Landscape Partnership to consider the potential interactions between recreation and nature conservation around the Isles of Scilly. In particular, the work is intended to identify any concerns regarding recreation use, gather people's views, and make recommendations for next steps.

### Importance of the Isles of Scilly for wildlife

- 1.2 The Isles of Scilly lie approximately 45km off the south-western tip of Cornwall. They are England's only oceanic archipelago and comprise over 200 low-lying islands and rocky outcrops.
- 1.3 The islands and surrounding waters support a range of habitats including maritime heath, grassland, rocky shore, dunes, intertidal flats, reefs and seagrass beds. These in turn support a range of species, many of which are now absent or very rare on the mainland. Of particular note are:
- A suite of plants that occur nowhere else in the UK: Dwarf Pansy *Viola kitaibeliana*, Least Adder's-tongue *Ophioglossum lusitanicum*, and Orange Bird's-foot *Ornithopus pinnatus*.
  - A suite of rare plants associated with arable, coastal, and heathland habitats including Shore Dock *Rumex rupestris*, Purple ramping-fumitory *Fumaria purpurea*, and Western Ramping-fumitory *Fumaria occidentalis*.
  - Elms (Dutch Elm disease is absent from the islands).
  - Rare lichens, including Gilt-edged Lichen *Crocodia aurata* (only location in the UK) and Golden-hair Lichen *Teloschistes flavicans*.
  - Unique sub-species of Meadow Brown *Maniola jurtina* ssp. *cassiteridum* and Speckled Wood *Parage aegeria* ssp. *insula* butterflies, and Sea Rush *Juncus maritimus* var. *atlanticus*, found nowhere else in Britain.
  - Red-barbed Ant *Formica rufibarbis* which occurs on St. Martin's and neighbouring islands.
  - Breeding seabirds, including Puffin *Fratercula artica*, Manx Shearwater *Puffinus puffinus*, Storm Petrel *Hydrobates pelagicus*, and Lesser Black-backed Gull *Larus fuscus*.
  - Breeding shorebirds: Oystercatcher *Haematopus ostralegus* and Ringed Plover *Charadrius hiaticula*.
  - Migrant birds.
  - Grey Seal *Halichoerus grypus* which pup on some islands.

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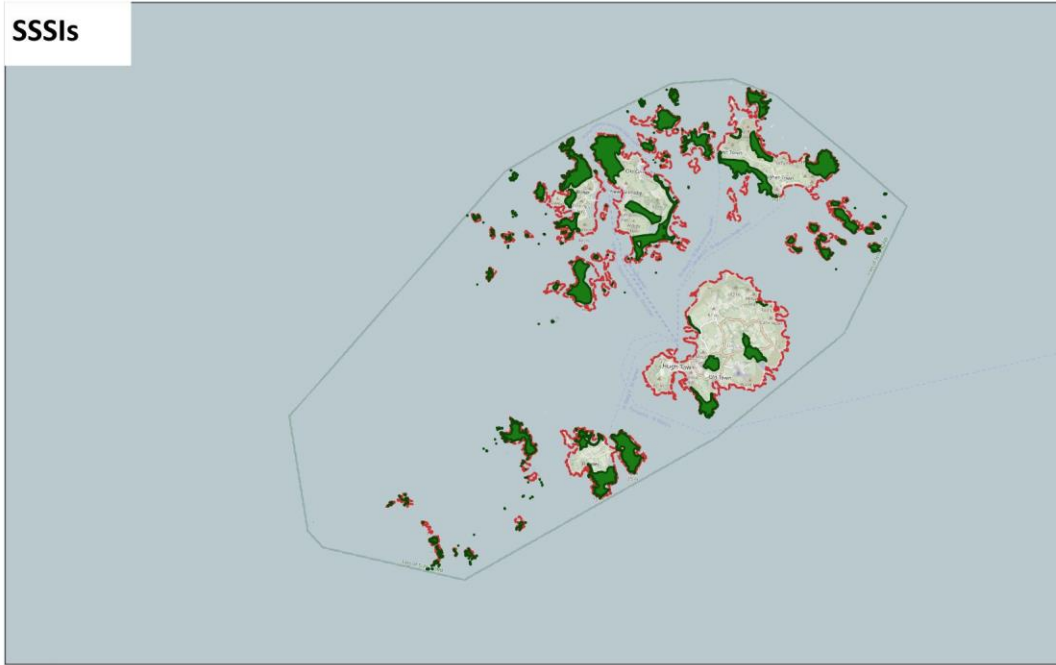
- Lesser White-toothed Shrew *Crocidura sauveolens*.

- 1.4 The waters around the islands qualify as a Special Area of Conservation (SAC) for subtidal biotopes, including subtidal sandbanks and reefs. The SAC also extends to protect the intertidal sandflats at St Martin's Flats (see Map 1), whilst the SAC features also include Grey Seal and Shore Dock.
- 1.5 The islands are classified as a Special Protection Area (SPA) for breeding Shag *Phalacrocorax aristotelis*, Great Black-backed Gull *Larus marinus*, Lesser Black-backed Gull and Storm Petrel, alongside a seabird assemblage of thirteen species. The islands are also listed as a Ramsar site (see Map 1) for the breeding populations of Lesser Black-Backed Gull.
- 1.6 These international designations are underpinned by 26 different Sites of Special Scientific Interest (SSSIs) (see Map 1).

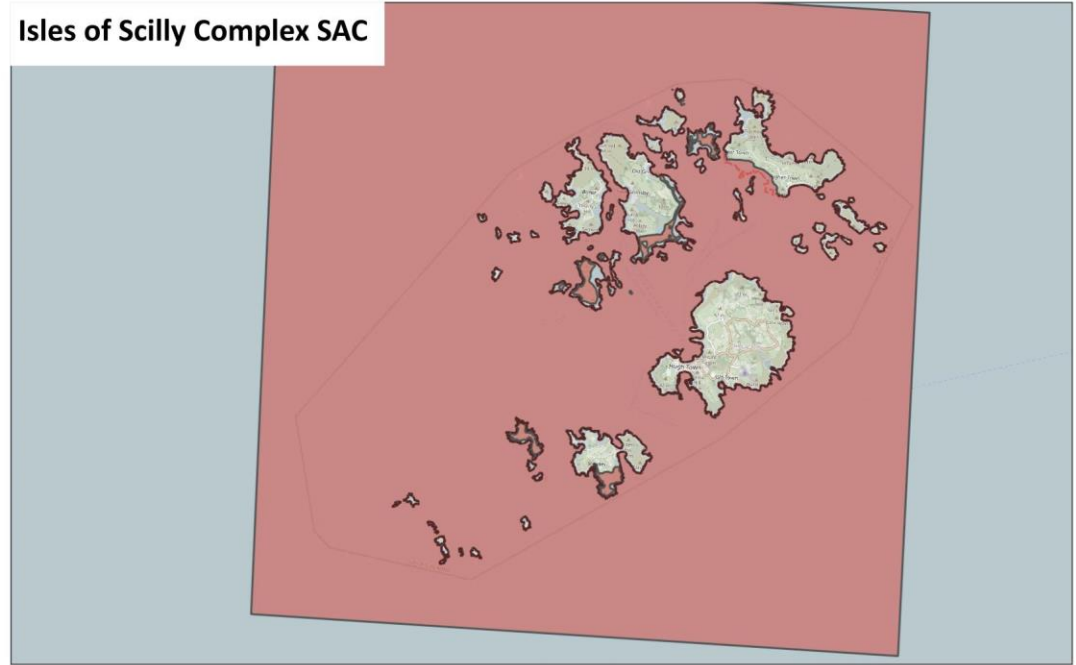


# Map 1: Key nature conservation designations

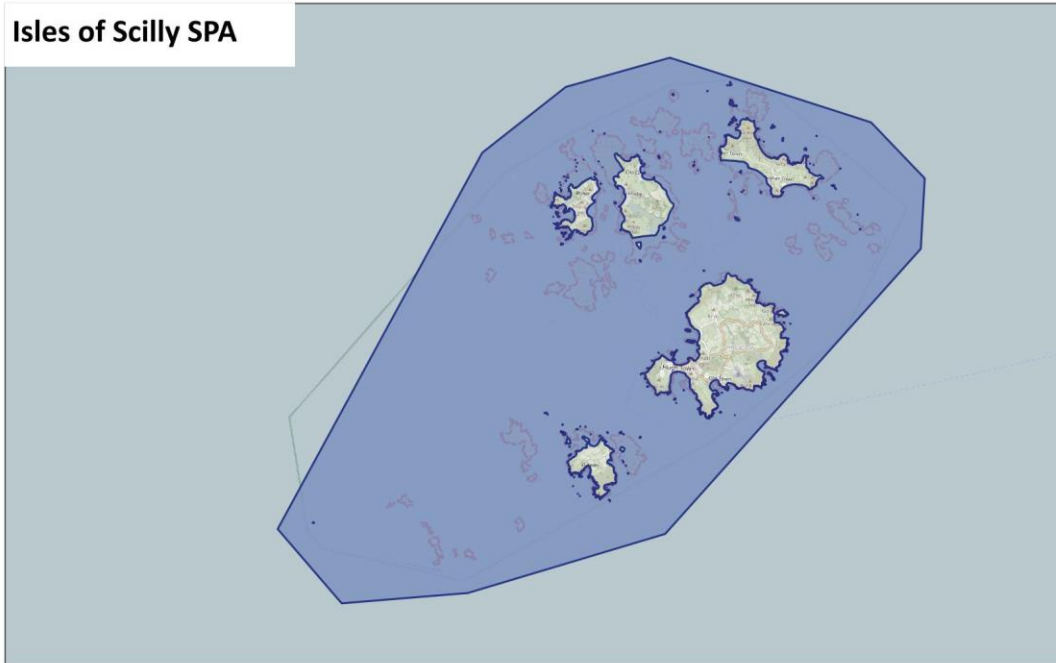
SSSIs



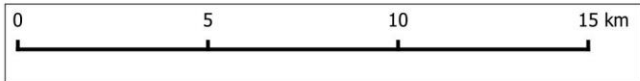
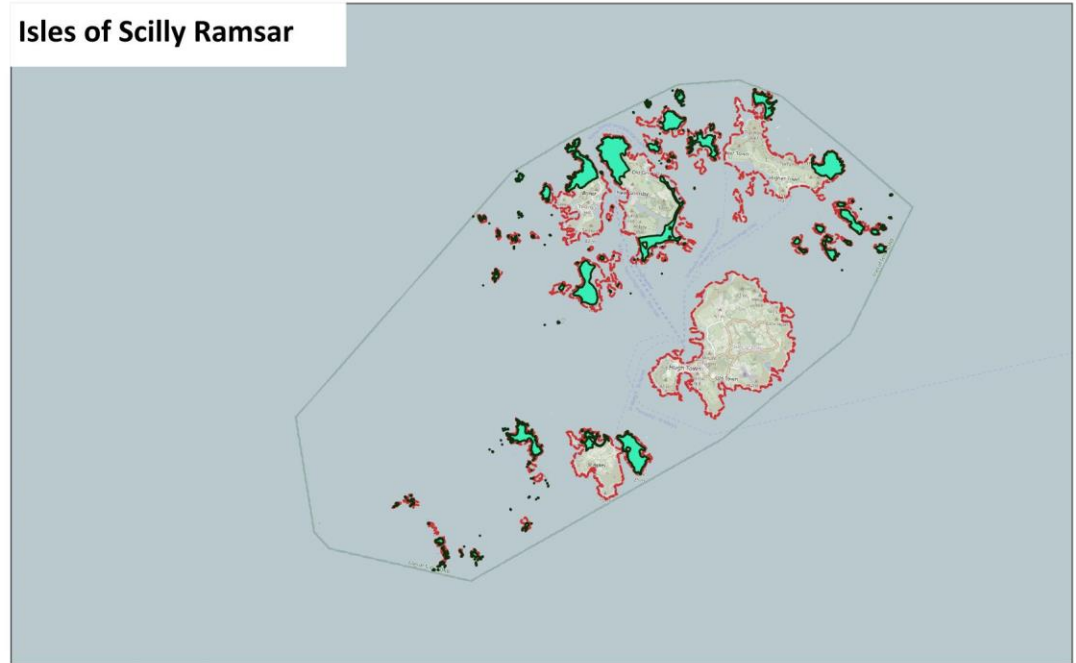
Isles of Scilly Complex SAC



Isles of Scilly SPA



Isles of Scilly Ramsar



## Recreation use

- 1.7 Five of the islands are inhabited and the population (at the time of the 2021 census) was 2,100<sup>2</sup>, with the majority (around 1,800) living on the largest island, St. Mary's.
- 1.8 The islands draw visitors for the scenery, beaches, boating and water-sport opportunities, heritage, and wildlife. Tourism is a mainstay of the local economy (Smyth, Harvey-scholes and Wills, 2021) and is estimated to account for 85% of the islands' income<sup>3</sup>, with numbers estimated at around 125,000 visitors a year<sup>4</sup>. While the majority of these are residential holiday-makers (South West Research Company Ltd., 2018), they also comprise day-trippers from the mainland and those visiting on cruise ships.
- 1.9 A range of organisations are involved in managing visitors and the tourist economy, and these include the Islands' Partnership (IP), the Council of the Isles of Scilly, the Duchy of Cornwall, the Isles of Scilly National Landscape Partnership and the Isles of Scilly Wildlife Trust.

## Impacts of recreation on wildlife

- 1.10 In the UK there is considerable overlap between nature conservation and recreation. People use nearby greenspaces for a range of recreation, which includes dog walking and physical exercise. It is now increasingly recognised that access to the countryside is crucial to the long-term success of nature conservation projects, for example through enforcing pro-environmental behaviours and inculcating a greater respect for the world around us (Richardson *et al.*, 2016). Access also brings wider benefits to society that include benefits to mental/physical health (Lee and Maheswaran, 2011; Keniger *et al.*, 2013; Olafsdottir *et al.*, 2020) and economic benefits (Sandbrook, 2010; ICF GHK, 2013; Keniger *et al.*, 2013; Stebbings *et al.*, 2020).
- 1.11 There are also considerable challenges, as the use of sites for recreation can damage their nature conservation interest and hinder potential for nature recovery. There is a strong body of evidence showing how increasing levels

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<sup>2</sup> <https://www.ons.gov.uk/visualisations/censusareachanges/E06000053/>

<sup>3</sup> [https://en.wikipedia.org/wiki/Isles\\_of\\_Scilly](https://en.wikipedia.org/wiki/Isles_of_Scilly)

<sup>4</sup> Visit Isles of Scilly press pack, 2019, see

[https://www.visitislesofscilly.com/dbimngs/Visit%20Isles%20of%20Scilly%20Press%20Pack%202019%20FINAL\(1\).pdf](https://www.visitislesofscilly.com/dbimngs/Visit%20Isles%20of%20Scilly%20Press%20Pack%202019%20FINAL(1).pdf)

of access can have negative impacts on wildlife. Issues are varied and there is an extensive body of literature documenting a wide range of types of impact (Underhill-Day, 2005; Lowen *et al.*, 2008; for general reviews see Liley *et al.*, 2010; Marzano and Dandy, 2012; Marion *et al.*, 2016). Some of the general ways in which recreation can impact wildlife are summarised in Figure 1.

- 1.12 The impacts shown in Figure 1 can be hard to place into context, particularly with respect to disturbance. While there is a large volume of studies that demonstrate animals responding or fleeing from the presence of people (e.g. birds flushing), understanding these in terms of the energetic costs and cumulative implications on fitness are not straightforward. Environmental conditions and other factors may play an important role, for example Goss-Custard *et al* (2006) showed that a given level of disturbance for wintering Oystercatcher had little effect when food supplies were plentiful, but when shellfish stocks crashed, the same levels of disturbance could result in birds dying from starvation. Furthermore, animals may not show any kind of behavioural response yet still be affected, for example an incubating bird can show an elevated heart rate for 2-3 hours after someone has passed the nest, yet have hardly moved (Weimerskirch *et al.*, 2002). Such physiological responses can have implications for breeding success or survival that are hard to directly measure (Beale and Monaghan, 2004).
- 1.13 The issues shown in Figure 1 are the focus of this report – and while there may be other social or environmental challenges associated with the numbers of visitors or their behaviour (for example relating to cultural impacts or resource use), these are outside the scope of this work.
- 1.14 Issues relating to recreation impacts and wildlife have long been recognised on the Isles of Scilly. For example, Natural England’s Site Improvement Plan<sup>5</sup> from 2014 identifies public access/disturbance as both a current pressure and future threat to the SAC and SPA interest on the Isles of Scilly. The Plan specifically highlights Grey Seals and breeding seabirds being vulnerable to disturbance and states that moorings and anchoring damage may be adversely affecting the coverage of seagrass beds. Smyth *et al.* (2021) highlight the loss of breeding Common Tern *Sterna hirundo* from Samson as potentially linked to recreation use.

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<sup>5</sup> See <https://publications.naturalengland.org.uk/publication/5804521016000512>



### Damage

- Vegetation wear (trampling damage)
- Soil compaction, erosion
- Direct damage (e.g. vandalism)



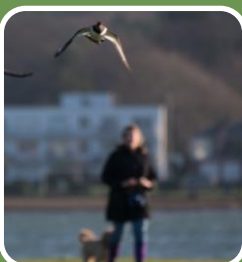
### Contamination

- Dog fouling
- Contamination of water bodies (e.g. turbidity, pesticides)
- Spread of non-natives
- Spread of disease
- Litter



### Increased fire risk

- Fire results in direct mortality
- Long-term habitat change



### Disturbance (to fauna)

- Avoidance of suitable habitat
- Energetic costs
- Physiological costs
- Direct mortality (e.g. increased predation)



### Other/management

- Difficulty in managing sites – grazing, public opposition etc.
- Costs of managing access deflect from site management
- Demand/pressure from visitors for facilities
- Harvesting (e.g. fungi, Samphire, wood)

Figure 1: General overview of recreation impact pathways

## Aims of this report and our approach

- 1.15 This report has been commissioned as an initial scoping study to identify broad concerns regarding recreation impacts to wildlife and habitats on the Isles of Scilly and, as appropriate, to identify possible steps towards addressing any concerns.
- 1.16 The Isles of Scilly are special, and it is that special nature that draws visitors and is also at risk of being harmed by recreation use. In the long-term it is therefore essential to understand any risks and ensure they are addressed, for the benefit of people and wildlife.
- 1.17 Views were sought from a range of local residents, stakeholders, and visitors through workshops, meetings, and phone calls. In all dialogue we framed two particular questions that related to:
1. Identifying particular concerns, in terms of the habitat/species that might be affected, type(s) of recreation, and any locations particularly relevant.
  2. Identifying any potential solutions that might be relevant to balance recreation and wildlife.
- 1.18 The report has been structured to summarise the responses to the above two questions, in terms of the concerns identified and possible ways to balance them. In the first two sections of the report, we simply feedback the views expressed by the various stakeholders, whilst the final section provides our recommendations and suggestions, based on the earlier findings.

## 2. Concerns identified

- 2.1 In this section we summarise the views of stakeholders and any concerns they have about recreation and wildlife. A number of specific concerns or potentially vulnerable species/features were identified, and these are summarised in Table 1. Locations mentioned by stakeholders are shown in Map 2. This map simply shows approximate lines and points that were annotated on maps by stakeholders during discussions and it is not drawn from actual species records or data. As such the map is not intended to comprehensively describe the distribution of the relevant features.
- 2.2 In general, many felt that, impacts from tourism were relatively low compared to much of the mainland and that this was due to a range of factors that included:
- Comparatively low overall numbers of people visiting (compared to honeypots on the mainland), simply due to the cost and logistics required to visit the archipelago.
  - A perception that visitor numbers overall have decreased.
  - A high proportion of repeat visitors who know the islands well and have been visiting for years, and who appreciate why the islands are special and behave accordingly.
  - The inter-island boats that ferry visitors to islands away from St. Mary's, which have a relatively small capacity and mean visitor use is dispersed in space and time,
  - Cruise ships tending to have a relatively elderly clientele who are potentially less physically able than other visitors and who, due to time and logistical constraints, tend to limit their visits to certain, more robust, locations (such as Hugh Town and the gardens on Tresco).
- 2.3 This is evidenced by the continued presence of a range of species (such as breeding Ringed Plover and Oystercatcher) that are well known to be vulnerable to recreation impacts and often absent from disturbed sites on the mainland (Liley *et al.*, 2021), issues with paths becoming overgrown (and requiring substantial management effort to keep them open, rather than being kept open by footfall), and a very limited incidence of recent problems with visitors and livestock or fires.
- 2.4 It is however possible that there will be changes in recreation use in the future and these may be hard to predict. There was a suggestion that there is now a demand for activity-focussed recreation, hinging upon adventure or particular experiences. Activities such as paddleboarding have become more

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common and dog ownership has also increased nationally since the covid pandemic (Morgan *et al.*, 2020). Stakeholders stated that there were now more dogs coming to the islands. Similarly, there has been a marked increase in cruise ships, with over 70 now visiting each year. While the number of day-trippers has declined in recent years that may change again in the future, depending on how tickets are priced/promoted and how fast the ferry becomes.

- 2.5 Issues may well therefore change over time and be dynamic. Some workshop attendees suggested that the demographic of visitors had changed, and the shift was now towards more people staying in self-catering accommodation and for longer. There have been changes following the pandemic too, with many long-term/regular visitors having “lost their slot” in the competitive holiday accommodation market. Such changes could therefore lead to an increase in the number of first-time visitors, who may be less aware of environmental sensitivities or who may undertake different recreation activities.
- 2.6 One example of the decrease in overall numbers is reflected in the birding community, and twitching specifically. In previous years single rare birds (such as the Philadelphia Vireo *Vireo philadelphicus* in 1987) have attracted birders in their 1,000's. While rare birds still draw crowds, the numbers are now lower, although some stakeholders still raised concerns about the large numbers of people suddenly visiting a single location over a short space of time.
- 2.7 Even if recreation impacts are relatively localised or less than on the mainland, it does not however mean they are insignificant. During the pandemic and the period of lockdown, stakeholders reported marked differences in the occurrence of wildlife, particularly noting the number of flowers, providing a clear indication of how recreation use can perhaps have impacts that are not otherwise picked up or noticed. Many of the seabirds and other wildlife found on the Isles of Scilly are under a range of pressures, such as climate change, and reducing pressure from recreation may help these species in the long run and allow them to recolonise/expand in the future.
- 2.8 Furthermore, it is clear that many people have strong (and sometimes opposing) views. Social media can sometimes exacerbate and fuel particular viewpoints. The relatively recent occurrence of a Walrus *Odobenus rosmarus* in the archipelago generated many strong views and some conflict regarding

how close people were approaching and the extent to which one individual animal might have been disturbed by the approach of boats and people. There are conflicting views among the various stakeholders as to how much of a concern disturbance to seals is.

- 2.9 There are numerous landing points and entry points around the islands, and this creates a range of issues in terms of engagement and how to convey information. There was reference to a range of mixed messages already to visitors, with some messages being haphazard. For example, the current signs at the Quay on St. Mary's referring to seal disturbance, and which suggest keeping a distance from seals, are located alongside a sign promoting snorkelling with seals. Codes of conduct (written some years ago) seem to have been dropped, and work to introduce a Scilly Pledge (which all visitors would be asked to make) have been delayed. Different islands have different approaches to dogs off-lead and what is required, and these aren't always clear to visitors.
- 2.10 Nevertheless, there are a range of existing measures in place which seem to have general support and consensus around their importance, for example the system of restricting access to many of the off-islands. The extent that these might be effective and work in the long term were questioned by some, however.



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**Table 1: Summary of specific concerns raised by stakeholders. The table is split into habitats and then species (or species groups), with the features then listed in alphabetical order.**

Features (e.g. habitats, species)	Location	Relevant recreation activity	Time of year	Damage	Contamination	Fire	Disturbance	Other	Notes
<b>Habitat-related</b>									
Heathland habitats	St Martins; Porth Hellick Down, Salakee Down, Giant's Castle (St Mary's), St. Agnes, Shipman Head (Bryher).	Dog walking, walking, horse riding, campfires/BBQs etc, clay pigeon shooting		✓	✓	✓		✓	Changes in management/grazing levels have led to extensive areas of mature gorse creating a potential fire risk (e.g. St. Martins); dog fouling is a source of contamination; soils can be vulnerable to trampling damage where there is heavy use; on open ground people do not necessarily stick to paths. Potential for off- and inter-island transfer of non-native plants and invertebrates.
Paths and peaty soils	Deep Point, Porth Hellick Down, Garrison and Penninis on St Marys. Tresco.	Walkers, dog walkers, horse riders, bicycles, and vehicles (in places)	All year	✓					Erosion a particular issue along the Daymark path on St Martins and the north side of St Marys. Also potentially contributed to by bicycle and increased vehicle use. Issues localised.
Pine shelterbelts	various	Campfires, BBQs	Summer and high fire risk periods			✓			Risk of fire spreading.
Rocky shores, rockpool communities and intertidal areas	St Mary's, area between Bryher and Tresco.	Rockpooling, people accessing rocks	April to October	✓					Trampling damage a risk where high levels of use.
Sand dunes and beaches	Porthmellon and Porthellick (St	Dog walking, walking,	Summer focus	✓	✓	✓			Access to beaches can lead to trampling damage; contamination from dog fouling, possibly fire

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Features (e.g. habitats, species)	Location	Relevant recreation activity	Time of year	Damage	Contamination	Fire	Disturbance	Other	Notes
	Marys), southern side of St Martins, Tresco	campfires/BBQs etc, people accessing the sea							risks. Also, dogs being brought ashore on tenders from yachts (to be emptied/exercise). Potential for off- and inter-island transfer of non-native plants and invertebrates.
Seagrass beds and other seabed habitats	Around St Mary's, Tresco, St Martins, Samson & the Eastern Isles (inter-island waters)	Anchoring by watercraft and potentially also cruise ships	Summer focus	✓					Anchors and moorings cause damage leading to loss of seagrass (specific mention of area to north-east of St. Mary's) and cruise ships. Also damage to other seabed habitats including around the wreck of HMS Colossus (south-east of Samson).
Watercourses	St. Mary's	Clay pigeon shooting, dog walking, sewage			✓				Leftover clays may cause littering. Some concerns around water quality.
Marine environment	General	Cruise ships, visiting yachts, sewage	Summer focus		✓				Concerns around sewage (from accommodation, campsites etc as well as boats), rubbish and marine litter.
Wetland habitats	St. Mary's	Various	All year		✓			✓	Some localised concerns around damage to hides etc. from youths and others. Potential for off- and inter-island transfer of non-native plants and invertebrates.
<b>Species or species groups</b>									
Breeding seabirds	Tean, St Agnes, Gugh, Annet and elsewhere	Yachts and other boats, wild camping, boat traffic,	Summer focus		✓	✓	✓		Risk of rats and other predators being transported to islands where they have been removed/are in the process of being removed. Potentially the larger yachts (e.g. those visiting from Ireland or France) pose most risk. Risks associated with

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Features (e.g. habitats, species)	Location	Relevant recreation activity	Time of year	Damage	Contamination	Fire	Disturbance	Other	Notes
		watersports, coasteering							transport of rubbish too. Large signs were erected on St Agnes post-eradication. Kayak hire at Agnes has risk of people visiting Annet and other sensitive locations. Recreational wild camping is not permitted, however a risk (e.g. remoter islands). Loafing/feeding birds possibly at risk from cruise ships (see map 2) or where fast boats. Coasteering identified as a particular issue for breeding Shags. People have been observed walking through the Lesser Black-backed Gull colony on White Island. Numbers of breeding gulls have shown declines (as have terns, with none nesting on the islands in 2023). Terns previously nested widely (see Map 2).
Dwarf Pansy	Bryher	Walkers, dog walkers, etc		✓	✓				Relatively small area where plant occurs and therefore vulnerable to changes in use.
Orange Bird's-foot	Bryher, Samson, St Agnes, and Tresco	Walkers, dog walkers, etc		✓	✓				Needs some bare ground, but not too much.
Rare lichens	Penninis Head (St Mary's), St Martins (and White Island)	Walkers, dog walkers, etc., cruise ships picnics, BBQs etc (fire risk)		✓	✓	✓			Terrestrial species with limited distributions, such as Gilt-edged Lichen, Golden-hair Lichen and Ciliate Strap-lichen, are particularly sensitive. Vulnerability in part due to rarity. Trampling, fire, dog fouling etc all concerns. Possibly risks from cruise ships are air quality?

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Features (e.g. habitats, species)	Location	Relevant recreation activity	Time of year	Damage	Contamination	Fire	Disturbance	Other	Notes
Shore Dock	Tean (and St Agnes/Gugh)	Walkers, dog walkers, etc	April to October	✓					Probably extinct now due to increased storminess and beach erosion. Plant can occur on beaches and in the past issues reported relating to tents pitched on top of plants at Samson and seedheads being burnt on a barbeque.
Elms	St. Mary's	Various			✓				Dutch Elm Disease is not present on the islands.
Freshwater invertebrates	Big Pool (St Agnes)	Dog walking (dogs in waterbodies)			✓				Risk of flea/tick/worm treatment contamination.
Range of terrestrial bird species	St Mary's and other locations	Dog walking and range of activities; Lighting associated with recreational activity;	Spring and summer focus				✓		Disturbance to ground/low nesting birds (note Skylark would be perhaps main concern but haven't bred on the islands since around 1999). Lighting changed to LED, 24/7, and some concern around lighting raised.
Beach nesting birds (e.g. Ringed Plover and Oystercatcher)	St Mary's, St Martins, and Treco	Wild campers, kayakers, dog walkers, walkers	Spring/Summer focus (April to July)				✓		17 to 24 pairs of Ringed Plover across Scilly representing key population in the South West of England. Beach use by visitors and local people, along with walking and dog walking likely to be the biggest issues. Visiting yachts, locally owned boats, hire boats and hire kayaks are a potential concern in increasing access in areas where there the Wildlife Trust advertises seasonal or year-round restrictions, however kayak and boat hire firms offer good guidance for users. Self-guided visiting kayak groups have been raised as a concern,

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Features (e.g. habitats, species)	Location	Relevant recreation activity	Time of year	Damage	Contamination	Fire	Disturbance	Other	Notes
									having been found wild camping on islands such as Tean.
Wintering and passage shorebirds (e.g. Sanderling, Ringed Plover, Whimbrel, etc)	Wide range of locations, however St Mary's (Porthloo) cited in particular.	Dog walkers	Winter months and spring/autumn passage period				✓		Dogs off-lead on beaches a particular concern.
Wetland breeding birds (e.g. Moorhen and Coot)	St Agnes (Big Pool), St. Marys	Dog walking (dogs in the water)					✓		Disturbance to (and potentially predation of) Coot and Moorhen chicks.
Grey Seal (haul outs & foraging)	Eastern and Western Isles, including East Porth, Great Ganilly,	Boat use/activity (tour boats, local use, visiting yachts, cruise ships), kayakers, snorkelling	Spring and summer focus, but potentially an issue across the year (pupping September to October)				✓		Seal numbers are increasing and there was some debate among stakeholders as to how much of a concern disturbance might be. Key concern related to incidences when large numbers of seals scared off rocky haul out sites, with risks of injury. Lack of data for small boats. Faster boats in the future may allow for more frequent/longer/more distant day-trips to off-islands. Kayak hire now available on several of the islands and self-guided groups are increasing. Self-guided groups do not have the informative point of contact that hire users do. Noise from cruise ships was mentioned by some (see Map 2). Some stated that seals

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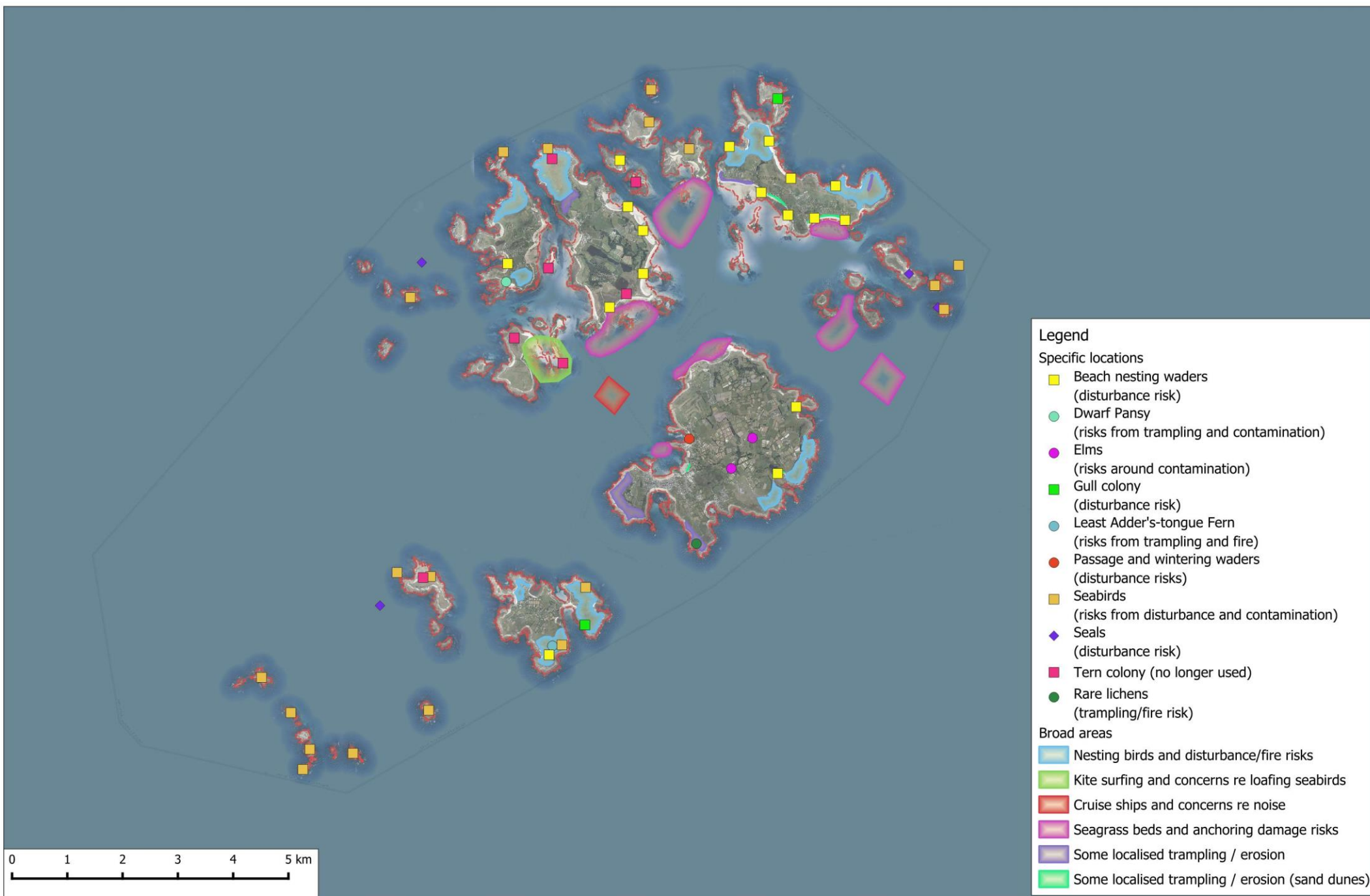
Features (e.g. habitats, species)	Location	Relevant recreation activity	Time of year	Damage	Contamination	Fire	Disturbance	Other	Notes
									potentially habituate through the spring/summer and behavioural responses most likely early in the season. Most captains have WISE <sup>6</sup> training however there was suggestions that the minimum approach distance recommended in the training (50m) is not always adhered to.
Bats	St Mary's and other locations	Lighting associated with recreational activity	Summer focus				✓		
Cetaceans	Open water	Boat traffic					✓		People seeing cetaceans from boats a great engagement mechanism however there are risks from noise disturbance and direct collisions. There have been increasing numbers of Humpback <i>Megaptera novaeangliae</i> and Fin Whale <i>Balaenoptera physalus</i> around the Isles of Scilly in recent years, mostly over the winter months. These can be close to islands. There was concern raised that many boat operators are not familiar with how to behave around large whales. Furthermore, if trends continue there may be scope for boat operators to run commercial trips in the future.

<sup>6</sup> <https://www.wisescheme.org/>

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Features (e.g. habitats, species)	Location	Relevant recreation activity	Time of year	Damage	Contamination	Fire	Disturbance	Other	Notes
Crawfish and other shellfish	Reefs and marine areas	Diving (visiting dive boats)	Summer					✓	Harvesting is not permitted within the Marine Conservation Zones, however some visiting dive boats are not necessarily aware of the rules.

**Map 2: Locations mentioned by stakeholders**





### 3. Ways to balance

3.1 In this section we set out the views and ideas of stakeholders in terms of how to balance recreation and wildlife. These are ideas to build on the measures already established.

#### General

3.2 General ideas, primarily relating to engagement, messaging and communication that were suggested included:

- Use new Museum and Cultural Centre development on St. Mary's as the main visitor hub, with idea that all visitors pass through, providing pinch point through which to provide information and engage – for example by promoting to visitors where to go, where they will not cause harm, and ensuring all visitors are aware of which islands are off-limits at particular times.
- Undertake work to get messaging right around recreation impacts, making visitors feel welcomed and engaged to act responsibly. Potential to develop the Scilly Pledge<sup>7</sup>.
- Provide new messaging around responsible tourism (potentially the 'Scilly Pledge') on-line, at points of booking (ferry, plane, accommodation etc), in accommodation and at key points (e.g. toilets, showers, pubs and restaurants, harbour master office, etc, that those using yachts may visit).
- Promote local food and produce as a means to engage with visitors and promote environmental messaging (sense of connection);
- Alongside messaging ensure that clear codes of conduct are available for particular activities – these may be based around maps demonstrating which islands access is permitted on (with the existing restrictions clearly shown), and could include a range of information around safety, etc.
- Contain and focus use in less sensitive areas, such as the Garrison on St. Mary's.
- Provide opportunities for both residents and visitors to engage with conservation work/monitoring linked to their activity (e.g.

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<sup>7</sup> This was a concise text with accompanying video that was intended to raise awareness of Scilly's environment and culture. The concept was that visitors signed up to the concept before arrival to indicate they would abide by the promise in the Pledge: to behave mindfully, tread lightly and consider their actions in relation to the future. See Smyth *et al.* (2021) for background.

mapping of seagrass beds from kayaks, diving to map marine habitats, etc).

- Set an upper ceiling for visitor numbers so that footfall is reduced at source (reducing the need for any access restrictions on the islands as visitor numbers are then sustainable). Ceilings potentially would need to be applied to the number of beds and number of cruise ships. Limit size of cruise ships (smaller ones likely to have more engaged audience?).
- Develop a cohesive strategy around signage, potentially more town based (e.g. toilets, etc). Potential to increase signs at key sensitive locations<sup>8</sup>, whilst limiting or reducing the overall number (as the relatively sign-free environment is one of the things that makes Scilly special). Adverts/promotional signage in some places could be removed to reduce overall signage burden.
- Develop a multi-stranded education approach (i.e. schools, visitors, websites, events, seasonal employers, etc), as input to local education will equate to action as people age; many highlighted the importance of working directly with local schools.
- Make use of existing communications pathways, with Facebook already an incredibly important medium for communication with residents, in particular.

## Activity specific

3.3 A range of ideas related to specific activities:

### Water-based access

- Visitors bringing kayaks, stand-up paddleboards and similar equipment (including inflatables) on the ferry or by air should receive targeted messaging at booking and when collecting their equipment. This messaging could comprise stickers or similar media, or a dedicated waterproof map/laminated pack (clearly showing restricted areas). There is potential for these users to sign that they have read the material.
- Train and engage with activity providers to self police, monitor clients, and ensure responsible behaviour (many are already WISE trained).
- Promote codes of conduct and other material at strategic locations where those on yachts are likely to land/access, such as toilet/shower blocks, food and drink outlets etc.

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<sup>8</sup> Locations specifically mentioned by stakeholders included Beady Pool on St. Agnes, Barnaby Lane access to Wingletang on St. Agnes, entry point onto Gugh from St. Agnes, Day Mark on St. Martin's.

- Provide targeted, Scilly-specific training and/or guidance on boat-based disturbance issues, in particular providing guidance on boat handling around large whales.

### **Horse riding**

- Work with community partners to establish a means to rotate horse riding routes to reduce damage to the regularly used routes.

### **Wildlife tourism**

- Ensure a clear code of conduct for wildlife tourism, and other activities that are potentially sensitive.
- Promote locations and opportunities to experience wildlife in a way that won't cause harm.
- Provide information in holiday lets and other accommodation around where to go and see wildlife (and where to avoid).
- Ensure continued training and learning opportunities so that tour operators and boatmen are highly knowledgeable and trained (noting many already endorsed through the WISE scheme), with a relatively urgent need for training to include large whales. Training could be tailored to Scilly and be part or fully-funded to ensure widespread participation.
- Encourage visitors to select boat operators with accreditation and feel empowered to raise concerns if they believe guidance is breached, with some kind of means to police/log operators not complying with guidance.
- Establish a 'mystery shopper' type approach where someone poses as a tourist and signs up to different tours, with the potential to feed back to operators, gather footage and help promote best practice.

### **Dogs and dog-walking**

- Work with partners to find a way to address dogs off leads on Porthloo beach and disturbance to shorebirds; issue needs further consideration and potential to deflect use to other areas or create an area where no dogs go.
- Have set beaches that are promoted as 'non-dog' beaches.
- Provide leads in accommodation and other locations as visitors often don't have leads with them when visiting off-islands (as no traffic and therefore no safety concerns).
- When dogs are transported on small boats to islands off St Mary's, ensure each dog owner is given advice on requirements for dogs off lead (e.g. by boatmen).
- Provide dog training for islanders.

- Avoid use of dogs off lead or in the surf in advertising and communications media.

## **Invasive species**

3.4 Suggestions relating to invasive species and contamination included:

- Ensure waste removal is biosecure.
- Controls on imports of barked timber, which might harbour Dutch Elm Disease.
- Controls on imports of live honeybee queens (which could bring Varroa mites and disease).
- Establish biodigestors to tackle food waste.
- Provide biosecurity advice/info on the Scillonian and other transport hubs.

## **Monitoring and data gaps**

3.5 The following monitoring and data gaps/opportunities were also identified:

- Monitoring of visitor use, potentially as heat maps, including boats and watersports would allow changes to be picked up and, in particular, highlight who is visiting seabird/seal colonies.
- Data needed to understand what brings people to Scilly and to understand what they hope to experience.
- An opportunity to use results from data gathering to expand dialogue and find solutions.

## 4. Our recommendations

- 4.1 In this section we set out our recommendations for next steps, based on our knowledge of the Isles of Scilly and drawing on some of the suggestions made by stakeholders.
- 4.2 A carefully thought through strategy with clear steps is essential to address any concerns. This will bring all relevant stakeholders along, ensure that the Isles of Scilly remain a welcoming place to visit, and maintain the special nature of the islands that so many visitors and residents cherish.
- 4.3 Disturbance and recreation impacts can invoke strong feelings and disagreement. There can be animal welfare, as well as nature conservation, concerns and these don't always align. Furthermore, many depend on tourism for their livelihood and it is the foundation of the local economy. This can make conversations difficult and a reluctance for change if there is a risk of financial implications.
- 4.4 A clear strategic approach will bring people together and provide greater clarity for all when particular scenarios or funding opportunities arise. The issues covered in this report require multiple organisations and stakeholders to work together, with potential roles for tourism operators, the Isles of Scilly Wildlife Trust, statutory agencies, the police, local residents, landowners, and others. A strategy would mean that it is clear where responsibility lies and also that necessary funding could be applied for and targeted appropriately.
- 4.5 We suggest such a strategy might be based around Limits of Acceptable Change (LAC) (Stankey *et al.*, 1985). This approach was developed in the U.S. in the 1980s and was devised to address impacts associated with perceived overcrowding and restore qualities of naturalness and solitude in areas defined as wilderness. It is a framework that is 'indicator' or 'standards-based' and, although widely used globally, has infrequently been used in the UK (the examples we are aware of are the Cairngorms, the Norfolk Coast, and Ashdown Forest).
- 4.6 The LAC approach focusses upon key stakeholders setting out the different characteristics or types of zone they want to achieve (referred to as opportunity classes in the original work). They then set management actions to achieve or maintain particular conditions within each type of zone, linked to monitoring data. This process identifies where, and to what extent, varying degrees of change are appropriate and acceptable, and

management can then be adapted accordingly. Its advantages lie in achieving consensus and a shared vision, potentially involving a wide range of stakeholders working together, and any interventions are based on evidence and planned in advance.

4.7 This approach would work well for the Isles of Scilly, in part because there is already good recognition of areas that are sensitive (the seabird colonies) and these are mapped and widely communicated. The LAC approach would then work to establish levels of activity in these areas that would be acceptable and at what point different interventions might be necessary.

4.8 We suggest the following steps, outlined in more detail below:

- Agree the key issues to focus upon.
- Gather initial data to clarify the scale of the issues identified and help inform what to do.
- Define a series of zones, and adaptive management within them. This would involve the use of the data to set out where and why any interventions might be necessary, and the relevant triggers as to when these might be required.
- Establish a rolling programme of monitoring, with results used to trigger management interventions when/if required.

### Key issues to focus on

4.9 People will inevitably hold a range of views as to what issues are important and the views of visitors and residents are likely to differ. Clearly setting out the key concerns and why they matter – and reaching a broad consensus about these – is an important starting point. It ensures there is ownership, buy-in and agreement from the start.

4.10 While there are clearly a wide range of issues and potential concerns, we highlight the following as the main impacts and risks from recreation use. We suggest these as they are either the most important from a conservation perspective, or they are contentious or novel/likely to increase in importance with time.

- Disturbance to breeding birds including seabirds and beach-nesting waders on some beaches on the main islands and also remote uninhabited islands. Disturbance risks for seabirds extend to loafing birds on the water. Scilly supports a suite of species which are now very rare or have disappeared from southern England, and are subject to a range of pressures, including

disturbance (Verhulst, Oosterbeek and Ens, 2001; Watson, Bolton and Monaghan, 2014; Liley *et al.*, 2021).

- Damage to seagrass beds, particularly from anchoring. The seagrass beds of the Isles of Scilly are some of the best in the UK, although it is possible that a recent decline is linked to recreational activity (see Howard-Williams, 2022 for review).
- Risk of fire, with risks to heathland and dune habitats, plus a range of rare species. This risk is likely to increase over time with climate change.
- Risk of the spread of rats and other non-native species to islands otherwise currently clear of them. These risks may change with time if rats are eradicated from more islands. Such spread poses potential consequences for a range of species, particularly seabirds.
- Grey Seal are increasing markedly around the coast, and it has been suggested it is only Harbour Seal *Phoca vitulina* (Skeate and Perrow, 2008) that are vulnerable to disturbance. Despite the increasing population of Grey Seals, there are certainly welfare issues<sup>9</sup> (Bellman *et al.*, 2019).
- Disturbance and boat collision risk to whales, given the now regular occurrence of increasing numbers of large whales close to the islands.

4.11 This does not mean the other issues and concerns raised by stakeholders are not real, or that they should be discounted; they are either more localised, less of a conservation priority, or less contentious.

4.12 The list of key concerns should be one that is agreed by all parties and provides the foundation for further steps. Agreeing a list ensures the community and all relevant parties can be clear as to what to focus on and what not to worry about. Once there is a clear and agreed list of what the key concerns are, these can be the focus of targeted action, monitoring, and the strategy. It could be widened to include heritage, cultural, and other environmental impacts and should be regularly reviewed.

## Data gathering

4.13 Map 2 shows some of the key locations that were mentioned in the various discussions underpinning this report. This could be developed further using

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<sup>9</sup> seals can be injured when they 'stampede' off rocks or tombstone into the water

actual species data, recent survey results, etc, to provide a comprehensive set of maps that are more accurate and based on real data.

4.14 Developing a better understanding of visitor use would require a targeted visitor survey. This would generate maps of use (i.e. heat maps to show distribution of access, by activity) and break down visitor profiles to highlight who is visiting particular locations, why they choose those locations, which groups have a good understanding of recreation issues, how they find information, etc. The results of these surveys would provide outputs that could be shared with stakeholders, combined with wildlife data, and used to inform next steps. The surveys would also have a range of added value.

4.15 Such a survey should be carefully planned, and could potentially comprise a mix of the following:

1. **Automated cameras on remote beaches, utilising time lapse** to record how often boats land and people access remote areas with breeding bird interest. These could be set up to take images every 30 minutes or every hour in daylight only and from a distance. The images would provide a check of how often a boat or people are on the beach, and on which dates/times of day;
2. **Direct counts of people on beaches supporting breeding waders on the main islands**, targeting those locations where Ringed Plover and/or Oystercatcher are holding territory in the early part of the year. The counts would be undertaken by direct observation;
3. **Counts/maps of boats anchored/moored across areas with seagrass and other sensitive locations**. Potentially undertaken from high points/good vantage points on the main islands and encompassing a wide range of dates and times. Also scope to perhaps map all small craft and watersports (kayaks, etc) as part of these counts<sup>10</sup>;
4. **Interviews with a sample of people arriving on the Isles of Scilly**, potentially undertaken on the ferry and at the airport. This would provide baseline data and general information on awareness, activities, places visited, etc; and/or,
5. **Targeted interviews at select locations**. This would involve interviews with people visiting (or likely to visit) the locations where the breeding bird interest is located and those in boats anchoring in the seagrass beds.

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<sup>10</sup> it is understood some monitoring has been undertaken by consultants commissioned by the Marine Management Organisation, but that the details of this was not available at the time of writing.



4.16 Points 1-3 relate to quantifying the scale of impact/risk and could provide baseline data for long term monitoring and specific needs for intervention. The targeted interviews (Point 5) could be compared to the wider interviews (Point 4) to identify the particular groups and types of visitor that are linked to potential harm/risk.

## Zones and adaptive management

4.17 The data will provide a means to make clear decisions and the evidence to underpin future action. We suggest following the LAC approach to divide the Isles of Scilly into a series of clear zones, with zones differing according to:

- The kind of visitor experience (e.g. with respect to infrastructure, information provision, what is permitted, etc).
- Key indices that can be monitored and trigger management.
- Management interventions necessary to achieve the identified zones and the future interventions that might be triggered by monitoring.

4.18 Zoning is commonly used in large protected areas and is an essential component in all tourism and visitor management processes (Leung *et al.*, 2018). By establishing zones, it will be possible to identify key metrics to monitor and set targets for different areas or zones, based on clearly defined objectives.

4.19 Zoning is in part already established on the Isles of Scilly in that there are existing maps and information identifying where people shouldn't land and where there is no access during the breeding season. Applying the LAC framework should therefore be relatively straightforward and make sense to people. It could be extended to apply simple zones that cover a spectrum from busy areas that would be a focus for visitors and have visitor infrastructure, signage etc. (e.g. Abbey Gardens, Hugh Town) to much wilder areas. Stankey *et al.* (1985) recommend applying 4-6 zone types on large sites. Zones would be mapped by groups of stakeholders using paper maps and the mapping could be undertaken as a series of workshops on each of the islands. Zones should cover the sea as well as land.

4.20 Fundamental to the LAC approach is the recognition that it is only when standards are exceeded that interventions are implemented. It will therefore be necessary for the study to establish clear standards for the zones and how monitoring results might trigger subsequent interventions. The framework would identify the different visitor management approaches

relevant (and necessary) and which were relevant to which zone. This would potentially include many of those listed in Section 3 of this report. For example, this could lead to new/updated messaging, potentially around the Scilly Pledge, that welcomes visitors, inspires them, and is clear as to what steps they need to take to keep the Isles of Scilly special. The messages could be targeted to different activities/visitor types or may work generically. Key components to that message should include:

- The islands that can be visited and when.
- Biosecurity measures needed.
- Requirements around dogs and dogs off lead.
- Where to get further information (e.g. relating to particular activities).

- 4.21 The framework and subsequent monitoring would not need to be overly complicated. Once brought together, the results would feed into a clear and agreed plan – this would have a map of the different zones and the kinds of management approaches relevant to each zone and when and where they might be applied. It would set the direction for the overall messaging and communication, for example feeding into the maps and information given to visitors.
- 4.22 The approach should be owned by local people, organisations, and relevant partnerships and should work to empower and support local tourism providers and initiatives, particularly those focussed around nature tourism and the natural environment.

### **Rolling programme of monitoring**

- 4.23 With an LAC type approach in place and a clear plan drafted, rolling monitoring would ensure a check of the standards and management would kick in as and when required. The approach would provide a clear and agreed framework for recreation management. It would ensure that adequate measures were in place – or agree to put further measures in place under particular circumstances – to protect the special wildlife of the Isles of Scilly. This would mean that it was safe to encourage people to visit Scilly, and local people could enjoy the recreation opportunities on their doorstep and earn a livelihood from tourism, whilst keeping Scilly special.

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