



JNCC Report 835

**Environmental Indicator K3: 2026 update on the status of endemic and globally
threatened species in the UK Overseas Territories**

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Summary

The UK Overseas Territories (UKOTs) support globally important biodiversity and are home to thousands of species found nowhere else in the world. Many of these endemic species face significant pressures from habitat loss, invasive non-native species, climate change and other threats. Understanding the conservation status of endemic species is therefore essential for informing conservation action and monitoring progress towards national and international biodiversity commitments.

Indicator K3 forms part of the Environmental Indicator Framework and measures the status of endemic and globally threatened species in the UKOTs. The indicator is based on the International Union for Conservation of Nature (IUCN) Red List Categories and Criteria, which provide a globally recognised framework for assessing species extinction risk. For the purposes of this indicator, threatened species are those classified as Vulnerable, Endangered or Critically Endangered on the IUCN Red List.

The indicator has been primarily developed using data from the [IUCN Red List](#) (version 2026-1) and [The UK's Wildlife Overseas: a Stocktake of Nature in our Overseas Territories](#) (Churchyard *et al.*, 2014). Additional endemic species have been identified through literature reviews undertaken by JNCC and provided directly by UKOT Governments and Administrations. Together, these sources have enabled the development of the endemic species dataset for the purposes of the K3 indicator.

As of 2026, the K3 dataset contains 1,602 endemic species, of which 632 species (39%) have been assessed against the IUCN Red List. This represents an increase of 112 assessed species since the previous publication of the indicator in 2025. Most of these additional assessments were newly published during the previous 12 months, particularly for species from St Helena.

This update includes a revision to the methodology used to calculate the proportion of endemic species that are threatened. Previous versions of the indicator included unassessed, Data Deficient and Extinct species within the denominator used to calculate the percentage of threatened species. This increasingly suppressed the reported proportion of threatened species as the endemic species inventory expanded. The revised methodology focuses on species which have undergone an IUCN Red List assessment to determine extinction risk, providing a more robust measure of threat status and improving comparability with other Red List based assessments. Due to this change in methodology, the 2026 update to this indicator is not directly comparable with previous versions of the K3 Indicator.

Using this approach, 77.5% (419) of assessed endemic species are classified as threatened. Of these, 191 species are Critically Endangered, 152 are Endangered, and 76 are Vulnerable. The results highlight the high levels of extinction risk faced by endemic biodiversity across the UKOTs. Threatened species were recorded in all regional groupings, with the highest proportions occurring in the Indian and Pacific Ocean region UKOTs (85.7%) and the Wider Caribbean region UKOTs (79.9%).

Assessment coverage and threatened status also varied among habitat types and taxonomic groups, reflecting differences on knowledge of biodiversity and Red List assessment effort.

While assessment coverage continues to improve, the majority of endemic species remain unassessed, particularly within invertebrate, plant and marine taxonomic groups with some groups having no assessments at all. Consequently, the indicator should be interpreted alongside current assessment coverage and known knowledge gaps.

This update establishes a robust baseline against which future changes in the threatened status of UKOT endemic species can be monitored. Although the endemic species inventory will continue to be refined through taxonomic review, species discovery and additional Red List assessments, the methodology presented in this report will be used to track changes in species status over time.

The statistics produced for the K3 Indicator will be used to inform national and international UK policy commitments, particularly reporting to the Environmental Improvement Plan, Convention of Biological Diversity and the UN Sustainable Development Goals, as well as other UK and UKOT Government policy areas. JNCC aims to develop and improve the statistics in ways that will support the work of UKOT Governments and inform non-governmental stakeholders and the wider public. Indicator K3 is published as an Official Statistic in Development to facilitate users' and stakeholders' involvement in assessing its suitability and quality. JNCC welcomes feedback and suggestions on any aspect of the K3 indicator via communications@jncc.gov.uk.

This report is an update to, and replaces [JNCC Report 795, 25 Year Environment Plan Outcome Indicator K3: Status of endemic and globally threatened species in the UK Overseas Territories \(2025 update\)](#).

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1. Introduction to Indicator K3

1.1. The Environmental Indicator Framework

The Environmental Improvement Plan (Defra 2025a) is the UK Government's action plan for improving the natural environment and achieving the commitment to leave the environment in a better state than it was found. The current plan builds on the 25 Year Environment Plan (Defra, 2018) and Environmental Improvement Plan 2023 (Defra, 2023) and provides a framework of ten environmental goals covering nature recovery, environmental quality, resource use and environmental resilience.

Progress towards these goals is monitored through the Environmental Indicator Framework (Defra 2019, Defra 2025b). This is a comprehensive suite of indicators that describe changes in the state of the environment and the pressures acting upon it. The Framework supports the assessment of environmental trends and the effectiveness of actions taken to improve environmental outcomes. Although the Environmental Improvement Plan is focused primarily on England, the Environmental Indicator Framework includes a small number of international indicators that assess the UK's wider environmental impacts and biodiversity outcomes. Indicator K3 forms part of this international indicator suite and tracks the status of endemic and globally threatened species in the UK Overseas Territories.

1.2. Indicator K3: Status of endemic and globally threatened species in the UK Overseas Territories (UKOTs)

JNCC has developed an indicator to quantify the proportion of endemic species in the UKOTs that are considered globally threatened. This indicator has been developed using data from the [International Union for Conservation of Nature Red List](#) (IUCN Red List) and [The UK's Wildlife Overseas: a stocktake of nature in our Overseas Territories](#) (Churchyard *et al.* 2014), published by the RSPB (also referred to as the 'RSPB Stocktake'). JNCC has undertaken extensive literature reviews of published and grey literature, taxonomic databases and species inventories to identify additional endemic species records and verify the endemism of known species. JNCC continues to review new evidence and verify species records with UKOT Governments, Administrations and taxonomic experts to improve the completeness and accuracy of the indicator dataset.

1.3. Purpose of the K3 Indicator

The K3 indicator will establish a baseline that can track changes in the threatened status of endemic species in the UKOTs over time. The indicator will be used to inform UK Government policy commitments including the [Convention on Biological Diversity \(CBD\)](#), specifically target 4 of the [Global Biodiversity Framework](#), which calls for a 'halt on human induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species' (CBD 2022).

The results from Indicator K3 will also support work undertaken by UKOT Governments, providing an evidence base on threatened endemic species that can be used to prioritise resources and target conservation action. In doing so, the indicator supports delivery of the UK Overseas Territories Biodiversity Strategy, particularly:

- Goal 3: Maximise opportunities for funding, partnership and collaboration, through the development of a shared evidence base.

- Goal 4: Strengthen and implement management and regulatory frameworks by providing information on species conservation status and extinction risk.
- Goal 5: Enhance environmental resilience by helping to identify species, habitats and territories requiring conservation attention (Defra, 2025).

Quantifying and tracking threat levels over time will assist in communicating the outcomes of conservation action in the UKOTs.

1.4. Update to the K3 Indicator

This report presents an update to Indicator K3, incorporating information available up to August 2026. It provides further statistical disaggregation of the data as well as technical information to accompany the indicator published through the [Environmental Indicator Framework](#) (Defra, 2026).

Since the previous publication of the indicator in 2025, the number of endemic species with IUCN Red List assessments has increased from 520 to 632 species. Of the 112 additional assessed species included in this update, 110 represent newly published Red List assessments completed during the previous 12 months. The majority of these new assessments were from St Helena (102 species), with further assessments from Ascension Island (three species), the Sovereign Base Areas of Akrotiri and Dhekelia (three species) and the British Indian Ocean Territory (one species). One additional record is for a species that was assessed prior to 2025 but had not previously been identified and incorporated within the indicator dataset.

The endemic species inventory has also been refined through ongoing literature reviews, review of taxonomic databases and consultation with UK Overseas Territory Governments and Administrations. These activities have improved the completeness of the dataset and enabled the identification and verification of additional endemic species records, taxonomic updates and disaggregation of the statistics. As a result, the total number of endemic species included within the indicator has increased since the previous publication from 662 to 1,602.

This update also includes a revision to the methodology used to calculate the proportion of endemic species classified as threatened, improving statistical robustness and aligning the indicator with the approach used in the RSPB Stocktake (Churchyard *et al.*, 2014). The calculation of threatened status is now based on IUCN Red List assessed species for which sufficient information is available to determine threat status. This change improves comparability with previous UKOT assessments and provides a more representative measure of extinction risk among assessed endemic species.

The indicator has now reached a stage where it can be used to establish a baseline for monitoring change over time. Although further species records, taxonomic revisions and Red List assessments are expected to be incorporated in future updates, the current dataset provides a sufficiently robust foundation for future comparisons. Future publications of Indicator K3 will apply the methodology described in this report to track changes in threatened status and assessment coverage through time.

Environmental Indicator Framework indicators are voluntarily compliant with the UK [Code of Practice for Statistics](#), which advocates that users' interests should be at the centre of indicator development. JNCC and Defra therefore welcome feedback (via environmentalindicators@defra.gov.uk) on the suitability, quality and usefulness of Indicator K3 from users across the UK and UK Overseas Territories.

2. Status of endemic and globally threatened species in the UKOTs: Results

Sections 2.1 to 2.3 present the proportion of endemic species that have been assessed against the IUCN Red List, disaggregated by region, habitat and taxonomy. Section 2.4 presents the percentage of assessed endemic species that are considered threatened across the UKOTs, including the proportion classified within each IUCN Red List category. These results align with the headline statistics reported in the [Environmental Indicator Framework](#) (Defra, 2026). Sections 2.5 to 2.7 further disaggregate the threatened status results by region, habitat type and taxonomic group. Confidence ratings for the data sources are provided in Section 2.8.

The British Antarctic Territory is excluded from all statistics presented in this report. Conservation and protection of Antarctic terrestrial and marine biodiversity are governed through the Antarctic Treaty System and are therefore considered separately from Indicator K3.

2.1. Assessment status of endemic species in the UKOTs: combined and by region

As of 2026, 632 (39%) of the 1,602 endemic species recorded across the UK Overseas Territories (UKOTs) have been assessed against the IUCN Red List (Figure 1). Whilst the number of assessed endemic species has increased by 112 since the previous publication of this indicator in 2025 assessment coverage remains incomplete, with 970 endemic species (61%) yet to receive a Red List assessment.

Despite recent progress, the majority of endemic species in the UKOTs remain unassessed (Figure 1; Table 1). Consequently, the results presented in this report should be interpreted alongside assessment coverage, as Red List assessments are currently concentrated within particular UK Overseas Territories and taxonomic groups (Figures 1 to 3).

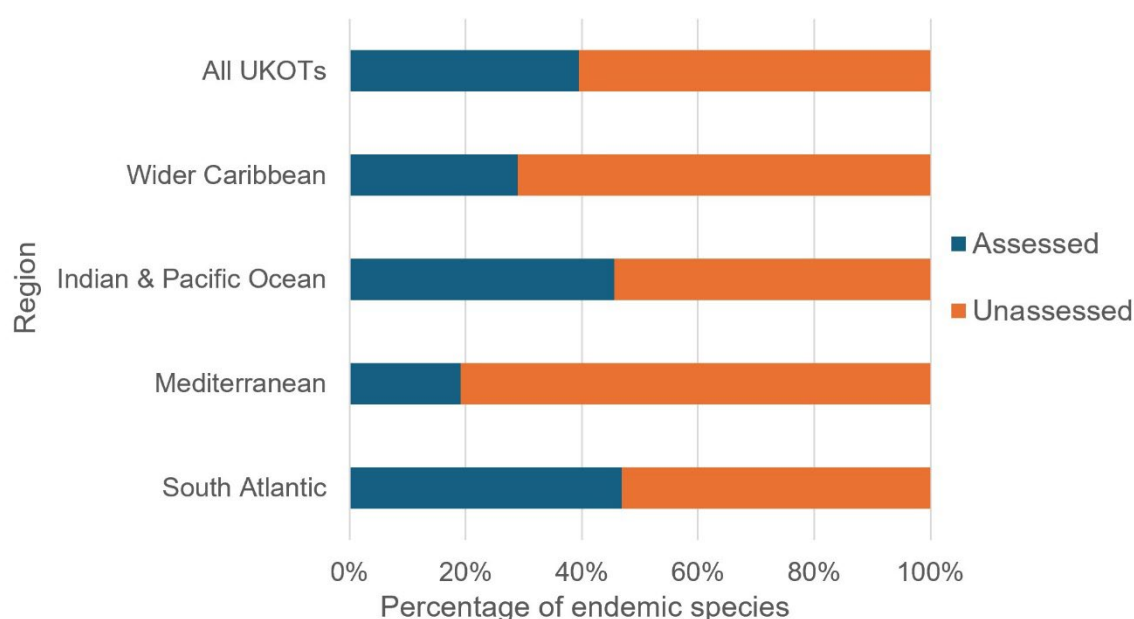


Figure 1: IUCN Red list assessment status of endemic species combined across the UK Overseas Territories ('All UKOTs') and by region.

Nearly half of endemic species in the South Atlantic region (46.9%; 428 species) and Indian and Pacific Ocean region UKOTs (45.6%; 31 species) have been assessed on the IUCN Red List. Assessment coverage was substantially lower in the Wider Caribbean region (28.3%; 160 species) and Mediterranean region UKOTs (19.1%; 13 species) (Figure 1, Table 1).

Table 1: IUCN Red list assessment status of endemic species combined across the UK Overseas Territories ('All UKOTs') and by region.

Region	Total endemic species	Number assessed	Percentage assessed
All UKOTs	1,602	632	39.5%
Wider Caribbean	553	160	28.9%
Indian and Pacific Ocean	68	31	45.6%
Mediterranean	68	13	19.1%
South Atlantic	913	428	46.9%

2.2. Assessment status of endemic species in the UKOTs: by habitat type

Assessment coverage differed between habitat types (Figure 2). Terrestrial species accounted for the largest proportion of endemic species in the UKOTs (1,230 species), of which 40.8% (502 species) have been assessed against the IUCN Red List. In contrast, only 28.9% of marine endemic species (89 of 308 species) have been assessed (Figure 2, Table 2), highlighting lower assessment coverage for marine biodiversity.

These results should be interpreted with caution, as marine biodiversity is generally less well documented than terrestrial biodiversity across many UKOTs. Several UKOTs have identified significant knowledge gaps in their marine species inventories, and the current dataset is therefore likely to underestimate the true number of marine endemic species. Consequently, lower assessment coverage for marine species partly reflects broader limitations in the underlying evidence base and current understanding of marine biodiversity within the UKOTs.

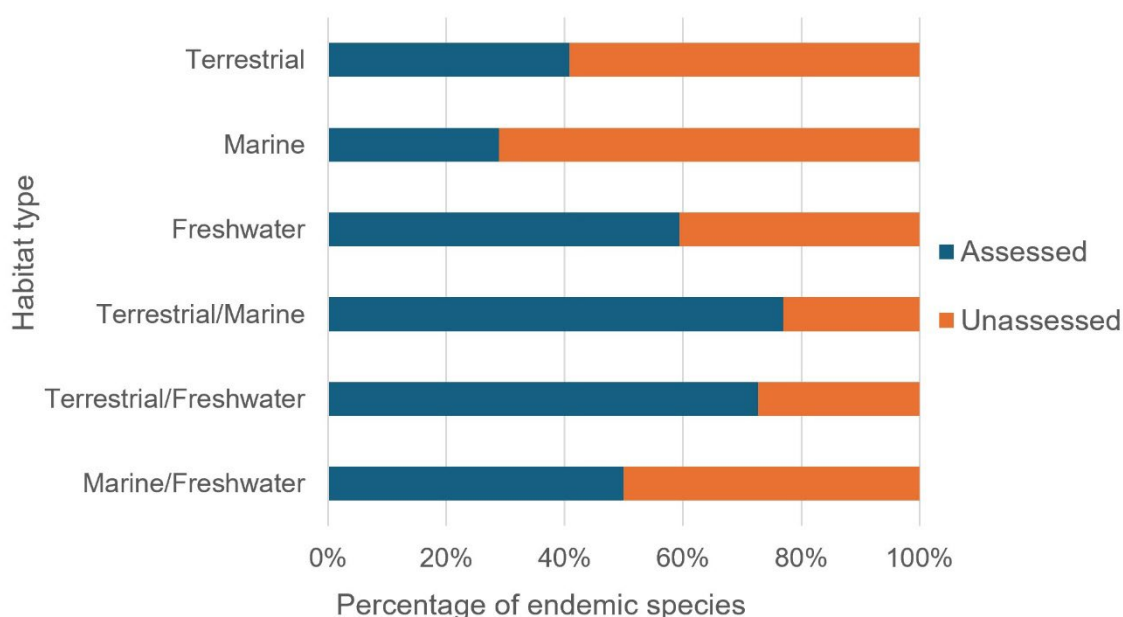


Figure 2: IUCN Red List assessment status of endemic species in the UK Overseas Territories, by habitat type.

Species associated with multiple habitat types had the highest levels of assessment coverage, with 76.9% (10 of 13 species) of terrestrial/marine species and 72.7% (8 of 11 species) of terrestrial/freshwater species assessed against the IUCN Red List (Table 2, Figure 2). Freshwater species also showed comparatively high assessment coverage, with 59.4% (19 of 32 species) assessed. However, all three categories contain comparatively small numbers of species and the results should therefore be interpreted with caution.

Table 2: IUCN Red List assessment status of endemic species in the UK Overseas Territories, by habitat type.

Habitat Type	Total endemic species	Number assessed	Percentage assessed
Terrestrial	1,230	502	40.8%
Marine	308	89	28.9%
Freshwater	32	19	59.4%
Terrestrial/Marine	13	10	76.9%
Terrestrial/Freshwater	11	8	72.7%
Marine/Freshwater	8	4	50.0%

2.3. Assessment status of endemic species in the UKOTs: by taxonomic group

Assessment coverage varied considerably between taxonomic groups. Reptiles had the highest proportion of species assessed (91.5%, 43 of 47 species), followed by fish (83.8%, 62 of 74 species) and birds (66.7%, 40 of 60 species). Assessment coverage was lower for several species-rich groups, including plants (47.9%, 157 of 328 species), molluscs (37.5%,

45 of 120 species), insects (35.2%, 191 of 543 species), arachnids (27.7%, 41 of 148 species) and crustaceans (24.7%, 36 of 146 species). Several taxa showed little or no assessment coverage. Worms had the lowest assessment coverage among groups with assessed species, with only 10% of endemic species (5 of 50 species) having been assessed against the IUCN Red List. No endemic species assessments were available for algae, myriapods, fungi or protists. However, these groups generally comprised relatively few species (3 to 12 species), with the exception of worms (50 species) (Figure 3, Table 3). In total, 632 of 1,602 endemic species (39%) had been assessed against the IUCN Red List (Figure 1, Table 1).

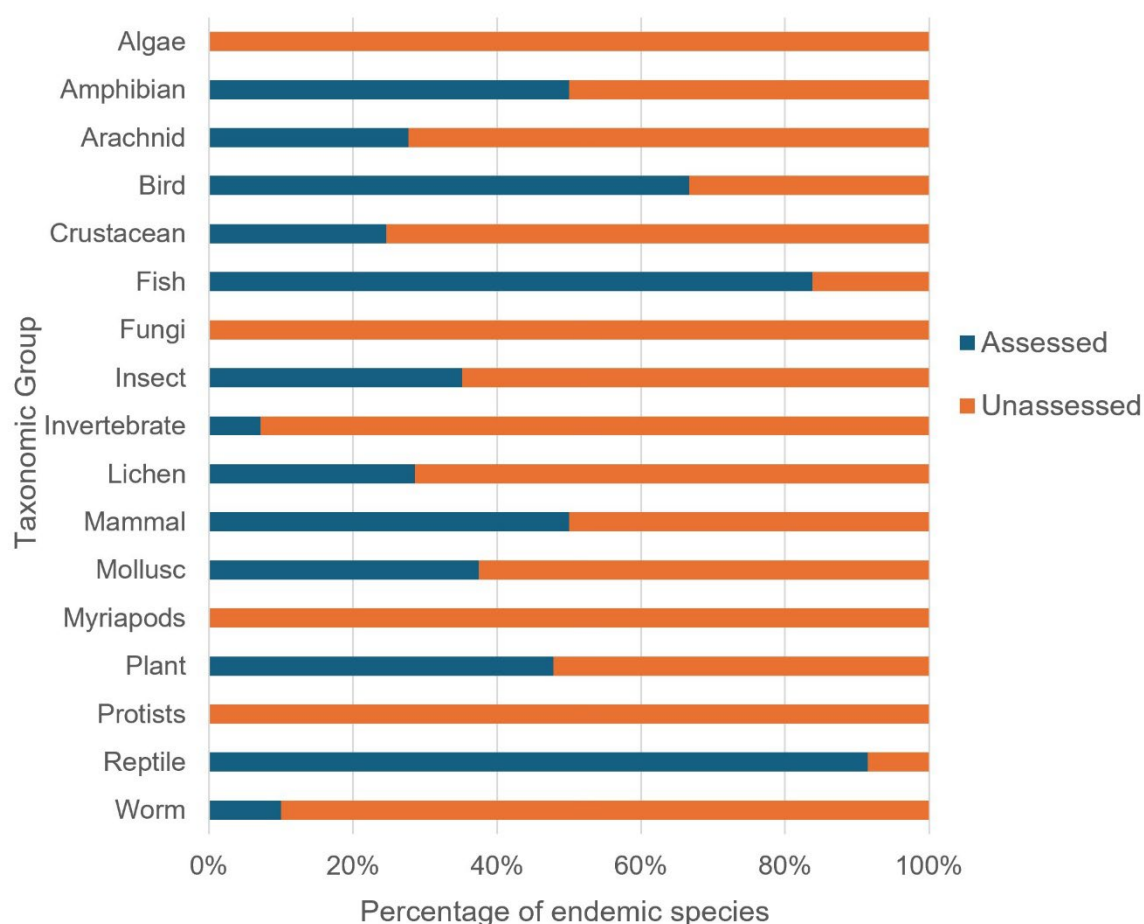


Figure 3: IUCN Red List assessment status of endemic species in the UK Overseas Territories, by taxonomy.

Table 3: IUCN Red list assessment status of endemic species in the UK Overseas Territories, by taxonomy.

Taxonomic Group	Total number of endemic species	Number of species assessed	Percentage assessed
Algae	8	0	0%
Amphibian	4	2	50%
Arachnid	148	41	27.7%
Bird	60	40	66.7%
Myriapod	6	0	0%

Taxonomic Group	Total number of endemic species	Number of species assessed	Percentage assessed
Crustacean	146	36	24.7%
Fish	74	62	83.8%
Fungi	12	0	0%
Insect	543	191	35.2%
Invertebrate	28	2	7.1%
Lichen	21	6	28.6%
Mammal	4	2	50%
Mollusc	120	45	37.5%
Plant	328	157	47.9%
Protists	3	0	0%
Reptile	47	43	91.5%
Worm	50	5	10%

2.4. Threatened status of endemic species in the UKOTs: combined

Figure 4 and Table 4 provide a summary of the status of globally threatened and endemic species in the UK Overseas Territories.

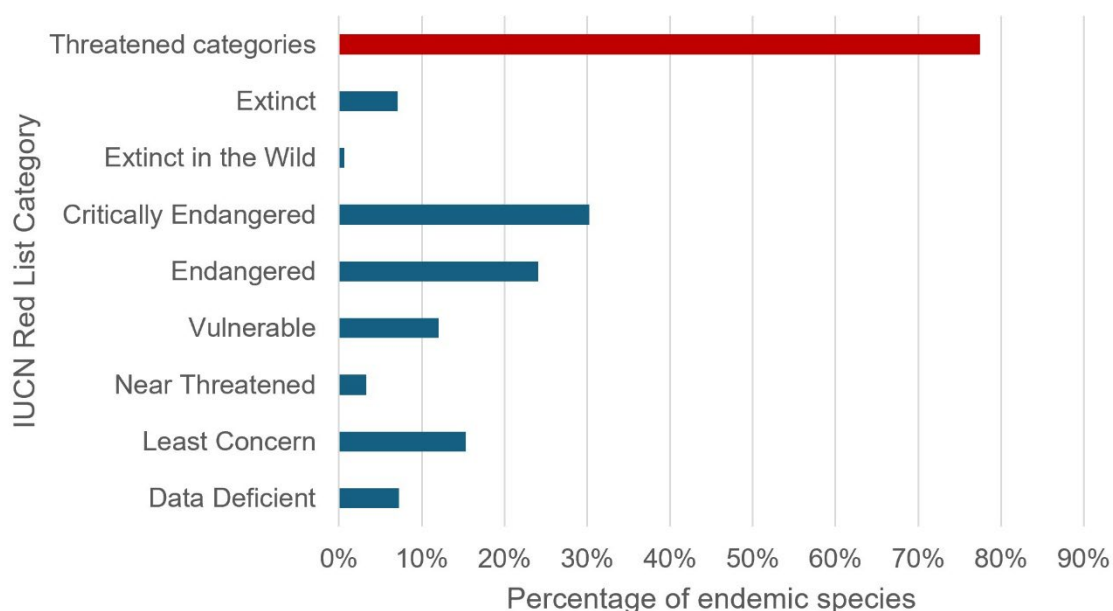


Figure 4. Percentage of assessed endemic species, in total (combined across 13 UK Overseas Territories) within each IUCN Red List category. Note that the 'Threatened categories' value combines the Vulnerable, Endangered and Critically Endangered IUCN Red List categories.

As of July 2026, 77.5% (419) of the endemic species in the UKOTs are considered threatened (see the combined 'Threatened categories' value) (Figure 1, Table 1). These are endemic species which are included in the Vulnerable, Endangered and Critically Endangered IUCN Red List categories, with 76, 152 and 191 species in each category respectively (Figure 4, Table 4). The methodology for calculating threatened status has been updated since the previous version of this indicator, refer to Section 3.3 for further details.

This percentage threatened is based on the current confirmed K3 Indicator endemic species dataset for the UKOTs which contains 1,602 records in total, of which 39% (632 species) are IUCN Red List assessed.

A further 7.1% (45) and 0.6% (4) of the endemic species are considered Extinct or Extinct in the Wild respectively (Figure 4, Table 4). Of the 45 species listed as Extinct, 44 species were classified in this category prior to 2016. One species was listed as Critically Endangered (possibly extinct) in 2019 and reclassified as Extinct in 2020.

Three endemic species changed Red List category since the previous version of this indicator was published in May 2025. Two endemic fish species from the South Atlantic Overseas Territories improved from Vulnerable to Least Concern, while one stony coral species was reassessed from Endangered to Critically Endangered.

Table 4: Number and percentage of endemic species, combined across 13 UKOTs, within each IUCN Red List category. The 'Threatened Categories' values (presented in the first row of the table) combine the Vulnerable, Endangered and Critically Endangered IUCN Red List categories.

IUCN Red List Category	Number of UKOT Endemic Species	Percentage of UKOT Endemic Species
Threatened categories	419	77.5%
Extinct	45	7.1%
Extinct in the Wild	4	0.6%
Critically Endangered	191	30.2%
Endangered	152	24%
Vulnerable	76	12%
Near Threatened	21	3.3%
Least Concern	97	15.4%
Data Deficient	46	7.3%
Total (excluding the Threatened categories subtotal)	632	100%

Since the publication of the RSPB Stocktake in 2014, there has been an increase in the number of endemic species from the UKOTs with Red List assessments, from 145 in 2014 to 632 in 2026. This includes an increase in globally threatened endemic species from 111 in 2014 compared to 419 in 2026 (Churchyard *et al.* 2014).

The RSPB Stocktake assessment of known endemic threatened species in the UKOTs in 2014 reported that 77% of all endemic species fall within the threatened categories (Churchyard *et al.* 2014). This indicator takes the same methodological approach as the

Churchyard *et al.* publication and despite the number of Red List assessment increasing, the percentage threatened has remained high.

2.5. Threatened status of endemic species in the UKOTs: by region

Figure 5 and Table 5 provide a summary of the status of globally threatened and endemic species in the UKOTs by regional grouping.

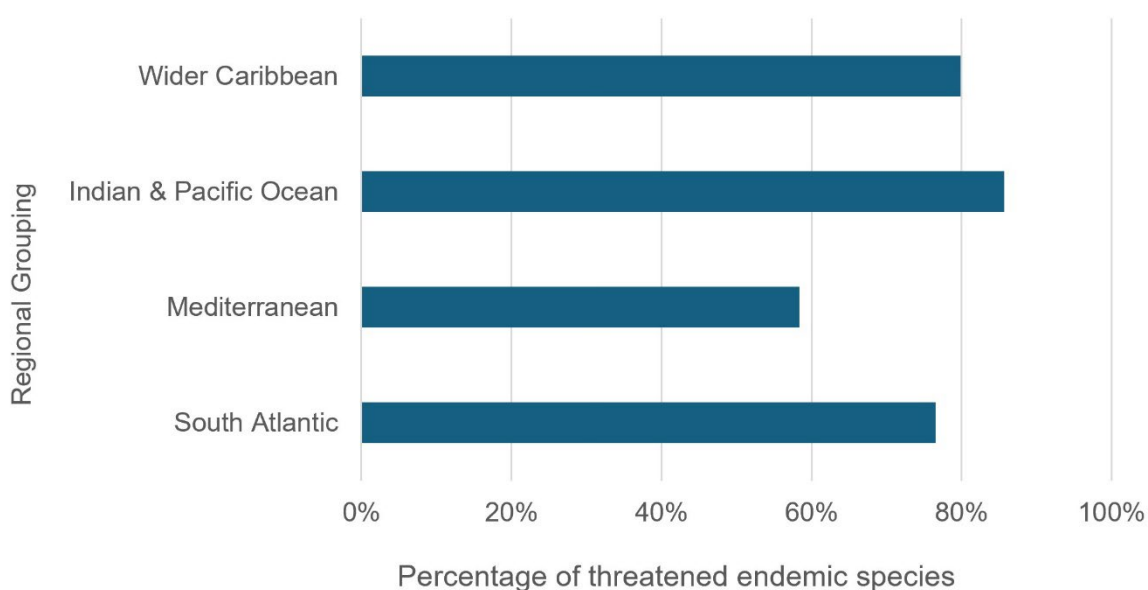


Figure 5: Percentage of assessed endemic species in the UK Overseas Territories that are considered threatened, by region.

The proportion of assessed endemic species classified as threatened varied across regions (Figure 5, Table 5). The Indian and Pacific Ocean region UKOTs had the highest proportion of threatened endemic species, with 85.7% (24 species) of assessed endemic species classified within the threatened categories. The Wider Caribbean region UKOTs also showed a high proportion of threatened species, with 79.9% (111 species) classified within the threatened categories. The South Atlantic region UKOTs contained the largest number of threatened endemic species overall (277 species), representing 76.5% of assessed endemic species in the region. The Mediterranean region UKOTs had the lowest proportion of threatened endemic species at 58.3% (7 species) (Figure 5, Table 5).

Table 5: Number and percentage of assessed endemic species in the UK Overseas Territories that are considered threatened, by region.

Region	Number of threatened species	Percentage threatened
Wider Caribbean	111	79.9%
Indian and Pacific Ocean	24	85.7%
Mediterranean	7	58.3%
South Atlantic	277	76.5%

Differences between regions should be interpreted with caution, as the number of assessed endemic species varies considerably (see Figure 1, Table 1). In particular, the Mediterranean and Indian and Pacific Ocean regions are represented by relatively small numbers of assessed endemic species, meaning that the classification of a small number of additional species could result in substantial changes to the percentage threatened. The South Atlantic and Wider Caribbean regions have larger assessed species inventories and therefore provide more robust estimates of the proportion of threatened endemic species.

2.6. Threatened status of endemic species in the UKOTs: by habitat

Figure 6 and Table 6 provide a summary of the status of globally threatened and endemic species in the UKOTs by habitat, combined across the UK Overseas Territories.

The proportion of assessed endemic species classified as threatened varied between habitat types (Figure 6, Table 6). Terrestrial species accounted for the largest number of threatened endemic species, with 373 species classified within this category. This represents 82.5% of assessed terrestrial endemic species. Freshwater species showed the highest proportion of threatened species (100%; 18 species), although this result is based on a relatively small sample size. Species associated with both terrestrial and marine environments also showed a high proportion of threatened species (62.5%; 5 species). Lower percentages of threatened endemic species were recorded for terrestrial/freshwater species (60.0%; 3 species) and marine/freshwater species (50.0%; 2 species). Marine species had the lowest level of threat overall, with 18 assessed endemic species (33.3%) classified threatened.

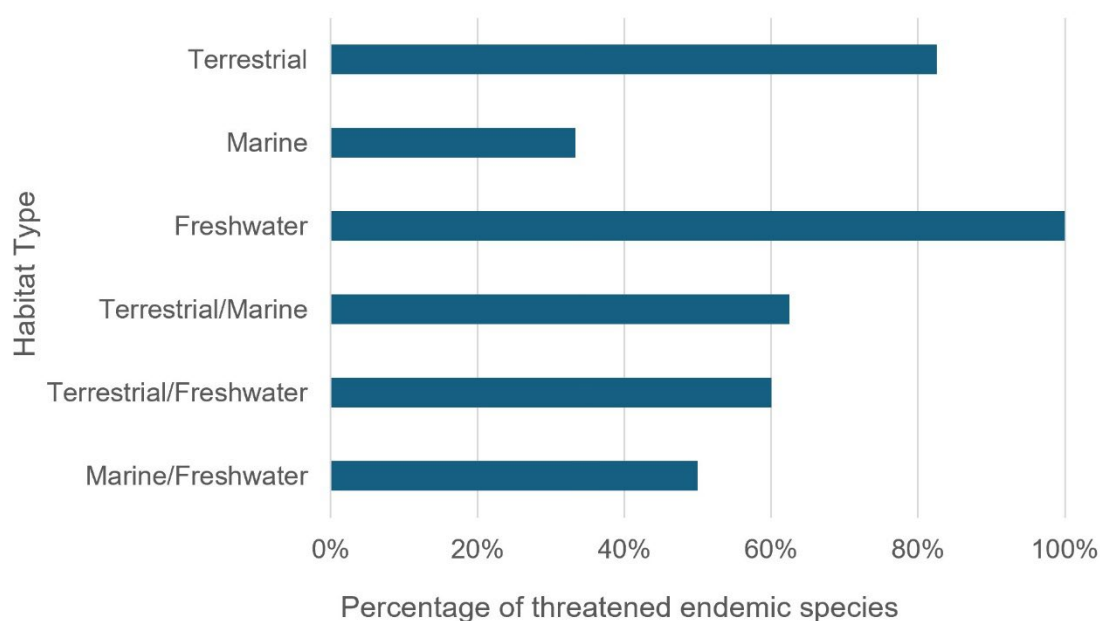


Figure 6: Percentage of assessed endemic species in the UK Overseas Territories that are considered threatened by habitat.

These results should be interpreted with caution, as sample sizes vary considerably between habitat types. While terrestrial species are represented by a large number of assessed species, several of the combined habitat categories, as well as the marine habitat type, contain relatively few species, meaning that the status of a small number of species can have a substantial influence on the percentages reported. In addition, current knowledge of

marine biodiversity remains incomplete in many UKOTs, and the number of known endemic marine species is likely to increase as survey effort and taxonomic knowledge improve.

Table 6: Percentage of assessed endemic species that are considered threatened, by habitat.

Habitat Type	Number of threatened species	Percentage threatened
Terrestrial	373	82.5%
Marine	18	33.3%
Freshwater	18	100.0%
Terrestrial/Marine	5	62.5%
Terrestrial/Freshwater	3	60.0%
Marine/Freshwater	2	50.0%

2.7. Threatened status of endemic species in the UKOTs: by taxonomic group

Figure 7 and Table 7 provide a summary of the status of globally threatened and endemic species in the UKOTs by taxonomic group, combined across the UK Overseas Territories.

The proportion of assessed endemic species classified as threatened varied considerably between taxonomic groups (Figure 7, Table 7). All assessed lichen (6 species) and worm species (3 species) were classified as threatened. However, these results are based on relatively small numbers of assessed species and should therefore be interpreted with caution. Among the larger taxonomic groups, crustaceans showed the highest proportion of threatened species, with 97.1% (33 species) classified as threatened, followed by arachnids (87.5%; 35 species) and insects (87.2%; 164 species).

Insects contained the largest number of threatened endemic species overall, accounting for 164 threatened species, followed by plants with 109 threatened species. Plants were also highly represented among threatened species, with 77.3% of assessed plant species classified as threatened. Birds and reptiles showed similarly high proportions of threatened species, with 69.2% (18 species) and 66.7% (28 species) respectively.

Lower proportions of threatened species were recorded for molluscs (57.9%; 11 species), amphibians (50.0%; 1 species) and fish (26.3%; 10 species). Fish exhibited the lowest proportion of threatened species among the major taxonomic groups included in the analysis.

Differences between taxonomic groups should be interpreted alongside sample size. Results for insects, plants, arachnids and crustaceans are based on relatively large numbers of assessed species and therefore provide more robust estimates of threatened status than groups represented by only a small number of assessments.

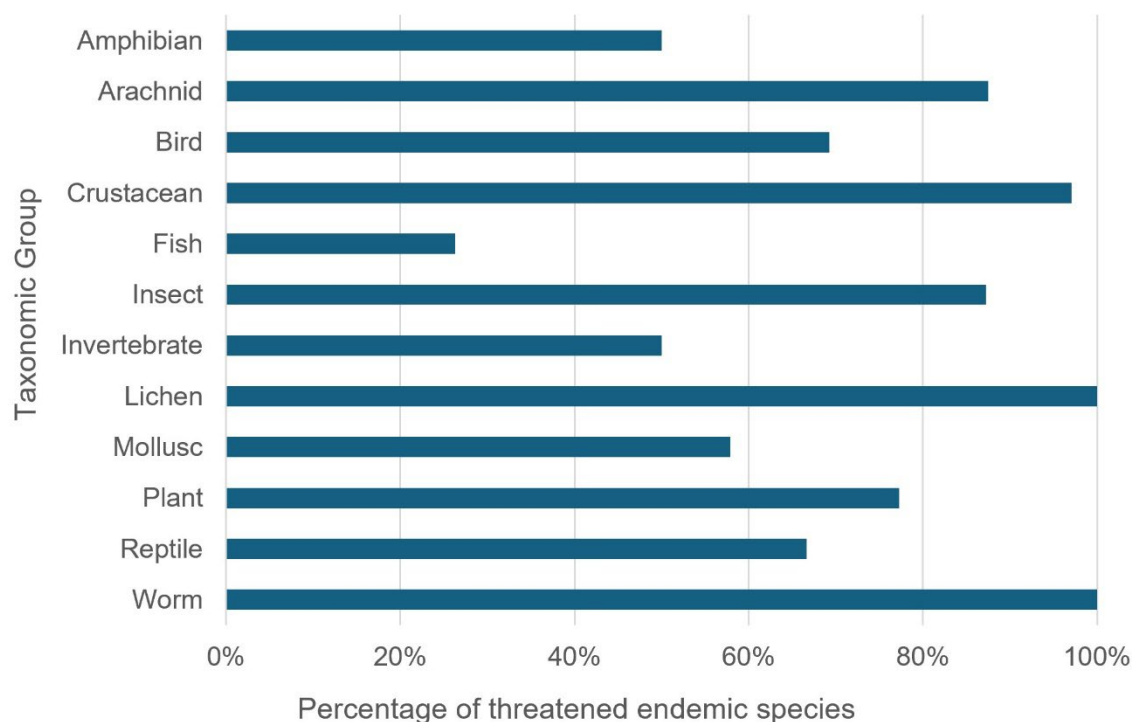


Figure 7: Percentage of assessed endemic species in the UK Overseas Territories that are considered threatened, by taxonomy.

Five taxonomic groups (algae, fungi, mammals, myriapods and protists) are not included in Figure 7 or Table 7 because no endemic species within these groups have been assessed against the IUCN Red List criteria (Figure 3, Table 3). Their absence from the analysis reflects a lack of assessment data rather than an absence of conservation concern. Continued Red List assessment effort within these groups will be important for improving understanding of the conservation status of endemic biodiversity across the UK Overseas Territories.

Table 7: Percentage of assessed endemic species in the UK Overseas Territories that are considered threatened, by taxonomy.

Taxonomic Group	Number of threatened species	Percentage threatened
Amphibian	1	50.0%
Arachnid	35	87.5%
Bird	18	69.2%
Crustacean	33	97.1%
Fish	10	26.3%
Insect	164	87.2%
Invertebrate	1	50.0%
Lichen	6	100.0%

Taxonomic Group	Number of threatened species	Percentage threatened
Mollusc	11	57.9%
Plant	109	77.3%
Reptile	28	66.7%
Worm	3	100.0%

2.8. Confidence in the threatened species assessments: Data Sources

The endemic species dataset used to develop Indicator K3 draws on information from the IUCN Red List, the RSPB Stocktake (2014), literature reviews undertaken by JNCC, and records provided by UK Overseas Territory Governments and Administrations. Species records have been reviewed and verified through these sources where possible to improve confidence in species identity, distribution and endemism status.

The [International Union for Conservation of Nature Red List](#) (IUCN Red List) is an inventory of the global conservation status of biological species. It is a reliable source of information both in terms of scientific data and institutional knowledge. Assessments are based on a precise set of criteria that is used to evaluate extinction risk of species and subspecies, with data provided at global and regional level. The IUCN Red List is recognised as the most authoritative source of information on species conservation status, however it is dependent on species being assessed, and for those that have been assessed there is no set period for reassessment. The Red List does not therefore cover all of the endemic species known to exist in the UKOTs.

The [RSPB Stocktake \(2014\)](#) is an inventory of recorded species in the UKOTs. It is based on a wide range of data sources, including published and unpublished literature and direct communication with collaborating organisations and individual experts. Prior to publication of the RSPB Stocktake, species lists for each territory were reviewed by relevant experts and were signed off by each UKOT.

JNCC has reviewed and is continuing to identify endemic and possible endemic species from the RSPB Stocktake and wider literature. There have been taxonomic revisions and changes to endemic status since the publication of the RSPB Stocktake and these changes have been captured during the development of this indicator. Due to the prominence of official data, and information gathered from government sources, JNCC is confident in the accuracy of the data reported in this indicator.

3. Technical Background

This section describes the methods used to calculate the threatened endemic species statistics and outlines the quality and limitations of the underlying evidence. These statistics are published in the [Environmental Indicator Framework](#) (Defra, 2026) and on the [JNCC website](#).

3.1. Geographic Scope

This indicator presents data from 13 of the 14 UK Overseas Territories (UKOTs). The endemic species inventory has been developed using information from multiple sources, with the majority of species records derived from The UK's Wildlife Overseas: a Stocktake of Nature in our Overseas Territories (Churchyard *et al.*, 2014) and subsequent literature reviews undertaken by JNCC. These records have been supplemented with information from the IUCN Red List and additional species records provided and reviewed by UKOT Governments and Administrations. Permission has been obtained to use IUCN Red List data for all UKOTs included within the indicator.

On 22 May 2025, the UK Government and Government of Mauritius signed a treaty concerning the sovereignty of the Chagos Archipelago. When the Treaty enters into force, sovereignty of the Archipelago will transfer from the UK to Mauritius and the British Indian Ocean Territory (BIOT) will cease to be a UKOT; until that date, BIOT continues to contribute to this indicator.

The British Antarctic Territory was excluded in the development of the K3 Indicator. The British Antarctic Treaty deals with matters relating to biodiversity conservation in this region.

3.2. Data Collection

Indicator K3 was developed using data from two principal sources: the [IUCN Red List of Threatened Species](#) and [The UK's Wildlife Overseas: A Stocktake of Nature in the UK Overseas Territories \(Churchyard et al., 2014\)](#). These resources were used as the starting point for the development of a comprehensive inventory of species considered to be endemic to the UK Overseas Territories (UKOTs).

The initial species lists were subject to a detailed review and verification process. This included a systematic search of published and grey literature, consultation of taxonomic databases and species checklists. An examination of more recent scientific publications describing newly identified endemic taxa or changes in species distributions and taxonomy was also undertaken. Where available, information from UKOT Governments, territory conservation organisations, subject experts and species specialists was also used to verify records and resolve uncertainties.

The review aimed to ensure that the inventory reflected the best available evidence at the time of compilation. Species were included where evidence supported their status as endemic to a single UKOT or to multiple UKOTs collectively. Taxonomic updates, synonymies and changes in endemism status identified through the literature review were incorporated where appropriate.

Once the endemic species inventory had been compiled, species were matched against the IUCN Red List to determine assessment status and Red List category. Where species had not been assessed under the IUCN Red List process, they were recorded as unassessed. The resulting dataset was then used to calculate the Indicator K3 statistics, including the

number and proportion of endemic species that have been assessed and the proportion of assessed species assigned to each IUCN Red List category.

Given the dynamic nature of taxonomy and conservation assessments, the inventory and associated statistics should be regarded as a snapshot of the best available evidence at the time of analysis. Future updates to the indicator may incorporate newly described endemic species, taxonomic revisions and additional IUCN Red List assessments.

3.2.1. IUCN Red List

The IUCN Red List acts as the primary source of information on the conservation status of endemic species included within Indicator K3. The Red List assesses extinction risk at a global scale and therefore provides an appropriate basis for the indicator.

3.2.1.1. Data download

A download of all species from the UKOTs was taken from the IUCN Red List in July 2026. This excluded the British Antarctic Territory, which is not included in this indicator.

The IUCN data download was produced using the advanced function. This feature allows the user to select specific fields, in this case the use of a filter function that includes endemic status. Taxonomic data were downloaded as a separate file from the IUCN dataset. This was merged with the species data to produce a complete dataset that includes taxonomy, endemic status, assessment category and geographic range as applicable to this indicator.

Some species from St Helena, Ascension and Tristan Da Cunha were grouped as endemic across the region in the IUCN download. This was true for 390 records. A manual search in the 'rationale' column of the IUCN species dataset for endemic status confirmed which island each species was endemic to. In total, 11 species were listed as endemic to St Helena and Ascension, and a further 21 were confirmed as endemic to St Helena, Ascension and Tristan Da Cunha. The remaining records were refined as endemic to one of these Islands. These records are included in this dataset as true endemics and not regional endemics.

3.2.2. RSPB Stocktake

The RSPB Stocktake (The [UK's Wildlife Overseas: a stocktake of nature in our Overseas Territories \(2014\)](#)) is a comprehensive inventory of all known species in the UKOTs. It includes the number of endemic species in each territory and the proportion which have had their conservation status assessed on the IUCN Red List. This assessment has highlighted knowledge gaps in different taxonomic groups as well as the need for increased Red List assessments in the UKOTs.

The RSPB Stocktake provided the principal reference source for the identification of endemic species within the UKOTs. The Stocktake remains the most comprehensive compilation of UKOT biodiversity information and was used as a baseline against which the endemic species inventory for Indicator K3 was developed and reviewed.

3.2.2.1. Reviewing endemic species from the Stocktake

The RSPB Stocktake includes an extensive list of 1,368 endemic UKOT species, as well as 34 endemic subspecies and 223 possible endemic species.

Of the 1,368 endemic species in the RSPB Stocktake, 632 are assessed on the IUCN Red List as of July 2026 and form part of this indicator.

The remaining endemic species records contained within the Stocktake were reviewed against more recent scientific literature, taxonomic databases and territory-specific species inventories. This review considered taxonomic revisions, newly described species, changes in endemism status and updates to species distributions. JNCC is continuing to review uncertainties around the geographic range of some species consulting taxonomic experts where relevant.

3.2.2.2. Endemic subspecies

A review of the 34 endemic subspecies in the RSPB Stocktake has shown that 15 are assessed on the IUCN Red List. These endemic subspecies have been incorporated into the K3 dataset. An additional 17 endemic subspecies have also been identified from the literature review and have been included in this update of the K3 Indicator.

3.3. Calculating threatened status for endemic species

The percentage of threatened endemic species in the UK Overseas Territories (UKOTs) is calculated using only the species that are assessed on the IUCN Red List. Threatened species are those assigned to the Vulnerable (VU), Endangered (EN) or Critically Endangered (CR) categories.

For this update of Indicator K3, the proportion of threatened species has been calculated using the same methodology as the RSPB Stocktake (Churchyard *et al.*, 2014):

% of threatened endemic species = (Vulnerable + Endangered + Critically Endangered) / (Total species excluding Unassessed, Data Deficient and Extinct species)

This approach focuses on species for which sufficient information is available to determine extinction risk and is widely used when reporting the proportion of species that are threatened. Data Deficient species are excluded because there is insufficient information to assess their conservation status, while unassessed species have not yet undergone an IUCN Red List assessment so are not included. Extinct species are also excluded from the calculation as the metric is intended to assess the level of extinction risk among extant species.

Previous versions of Indicator K3 included Data Deficient, Extinct and Unassessed species within the denominator used to calculate the percentage of threatened species. As the endemic species inventory has expanded, the number of recognised endemic species that have not undergone a Red List assessment has increased substantially. Including these species in the calculation reduces the reported proportion of threatened species, not because conservation status has improved, but because a larger proportion of species have not yet been assessed.

The revised methodology provides a more robust measure of extinction risk among species for which conservation status is known. It also improves comparability with the RSPB Stocktake and other Red List based indicators by ensuring that the calculation is based solely on species that have received a Red List assessment.

Applying the revised methodology results in 77.5% of assessed endemic species being categorised as threatened, compared to 48% using the method from the previous

publication. This increase reflects the methodological change, and an increase in the number of assessments, rather than a genuine deterioration in the conservation status of UKOT endemic species.

When the revised methodology is applied to the dataset used in the previous publication, 74.3% of assessed endemic species are categorised as threatened, despite the smaller number of species with Red List assessments available at that time.

The revised value is also consistent with the figure reported by the RSPB Stocktake in 2014 (77%), providing greater continuity with previous assessments of biodiversity status across the UKOTs.

3.3.1. Calculating endemic species status

The percentages presented for individual IUCN Red List categories in Figure 4 and Table 4 are calculated using all assessed endemic species as the denominator. As discussed above, the combined 'Threatened category' statistic excludes Data Deficient, Extinct and unassessed species, following standard approaches for reporting the proportion of species that are threatened.

3.4. Disaggregating the statistics

There are 62 regional endemic species listed on the IUCN Red List, however these are not currently included in the K3 Indicator. It is anticipated that these will be included in some capacity in the next publication, however further consideration is needed around the geographic scope for regional endemic species within each territory. Discussions are ongoing on the best approach for including these data.

3.4.1. By Region

In addition to presenting statistics for endemic species across all UKOTs, results are also disaggregated by four broad geographic regions. Regional groupings were developed to reflect broad biogeographic and ecological similarities between territories and to support comparison of endemic species patterns at a meaningful spatial scale.

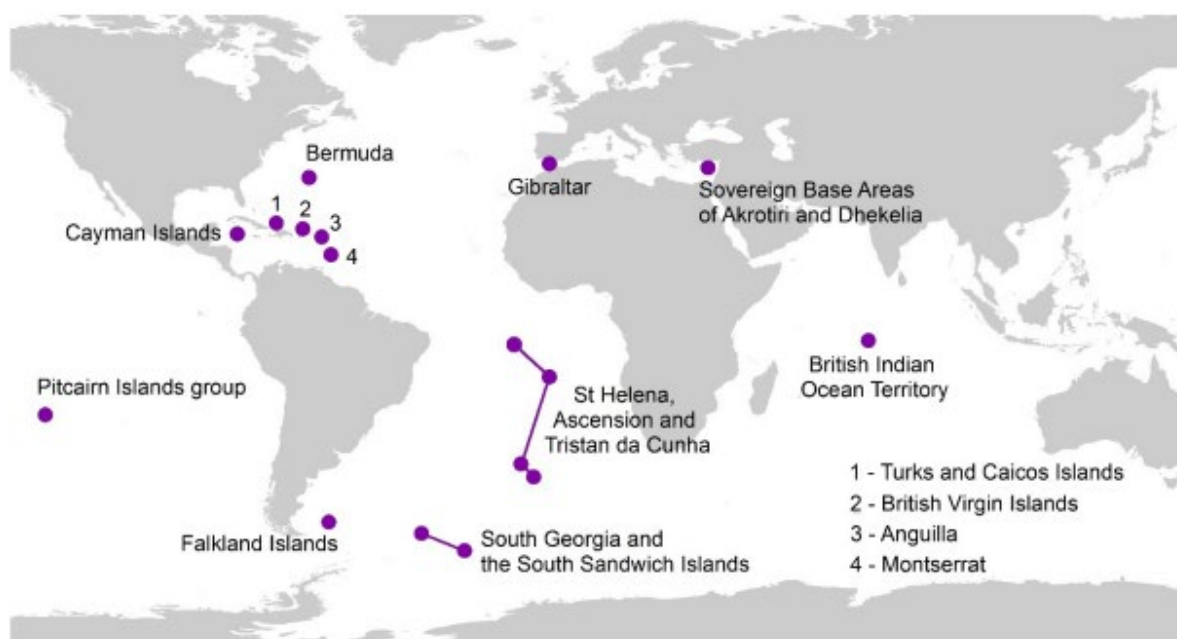


Figure 8: UK Overseas Territories included in Environmental Indicator K3: British Antarctic Territory is excluded.

The regional groupings adopted for Indicator K3 are: Mediterranean UKOTs (Gibraltar and the Sovereign Base Areas of Akrotiri and Dhekelia); South Atlantic UKOTs (Falkland Islands, St Helena, Ascension and Tristan da Cunha, and South Georgia and the South Sandwich Islands); wider Caribbean UKOTs (Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Montserrat, and Turks and Caicos Islands); and Indian and Pacific Ocean UKOTs (British Indian Ocean Territory and the Pitcairn Islands group). The geographic location of each of the UKOTs is shown in Figure 8.

While the British Indian Ocean Territory and the Pitcairn Islands group are geographically distant, they are combined within a single Indian and Pacific Ocean region to provide a practical grouping for territories located outside the Atlantic and Mediterranean regions, and because both have relatively low numbers of known endemic species compared to other UKOT regions.

Regional disaggregation allows differences in endemic species richness, assessment coverage and threat status to be explored within a broader geographic context. It also helps identify regional patterns and evidence gaps, providing additional insight into where future survey effort and action may be required.

3.4.2. By Habitat Type

Endemic species were assigned to habitat categories based on the environment in which they occur. Species were classified as terrestrial, marine or freshwater, or as occupying multiple habitat types (terrestrial/marine, terrestrial/freshwater, or marine/freshwater). This disaggregation explores potential differences in assessment coverage and threatened status between major habitat systems. The habitat classification is based on the best available information for each species and provides a broad representation of species occurrence across the UK Overseas Territories.

3.4.3. By Taxonomy

Endemic species were assigned to taxonomic groups using the taxonomy provided through the IUCN Red List and supporting literature. Species were disaggregated into major taxonomic groups, including mammals, birds, reptiles, amphibians, fish, plants, lichens, insects, arachnids, crustaceans, myriapods, molluscs and worms. Several groupings contained very small numbers of species. To improve the robustness and interpretability of the analysis, cnidarians, sponges, tunicates, collembolans and tardigrades were combined into a single 'invertebrate' category. This approach reduces the influence of very small sample sizes on the results while retaining visibility of broader taxonomic patterns within the endemic species dataset.

Myriapods, which include centipedes and millipedes, were retained as a separate taxonomic group due to their distinct taxonomic position within the phylum Arthropoda, despite the relatively small number of endemic species currently identified within this group. Other taxonomic groups with relatively few endemic species (mammals, amphibians, algae and protists) were also retained separately where they represent recognised and ecologically distinct groups that are commonly considered independently in biodiversity assessment and reporting.

3.5. Sources of uncertainty

The species included within the current K3 Indicator dataset represent known endemic species for the UKOTs. Records have been compiled from multiple evidence sources and verified through published literature, official government sources, the IUCN Red List, taxonomic databases and expert review. JNCC is therefore confident that the current dataset provides a robust representation of the known endemic species of the UKOTs.

However, the current K3 dataset should be considered in the context of ongoing improvements in biodiversity knowledge across the UKOTs. New endemic species are regularly described through taxonomic research and biological surveys. Taxonomic revisions and improved understanding of species distributions may also lead to changes to the number of species recognised as endemic in future updates.

The limited number of Red List assessments across the endemic species is another source of uncertainty. While the number of assessed endemic species continues to increase, 61% are still unassessed, particularly within invertebrate, plant and marine taxonomic groups. As a result, the indicator does not fully represent the status of all endemic biodiversity within the UKOTs but is indicative of wider trends.

The indicator is also dependent on the availability and quality of data used within IUCN Red List assessments. For some species, such as those classed as Data Deficient, a level of extinction risk cannot be assigned because insufficient information exists to undertake a full assessment.

JNCC is continuing to review and verify additional endemic and regional endemic species records in collaboration with UKOT Governments and Administrations and taxonomic experts. Future indicator updates may therefore result in changes to both the total number of endemic species and the proportion of species assessed and classified within each IUCN Red List category.

3.5.1. Published endemic species inventories

The number of endemic species reported in Indicator K3 differs from figures presented in previous publications, including [The UK's Wildlife Overseas: a Stocktake of Nature in our Overseas Territories](#) (Churchyard *et al.*, 2014) and the [UK Overseas Territories Biodiversity Strategy](#) (Defra, 2025). These differences reflect variations in methodology, taxonomic treatment and the level of evidence required for inclusion within the K3 dataset, rather than changes in biodiversity itself.

Indicator K3 only includes species for which endemism can be confirmed based on available evidence. Undescribed taxa have generally not been included unless sufficient information exists to demonstrate that the taxon is distinct and endemic to a particular UK Overseas Territory. As a result, some species counts reported elsewhere may be higher because they include putative endemic species that are awaiting formal description or taxonomic review.

Differences may also arise because some published estimates are based partly on expert judgement or extrapolation rather than confirmed species inventories. For example, species-rich taxonomic groups that have not been comprehensively surveyed may be represented by estimated numbers of endemic species. This is particularly relevant for some invertebrate groups, where knowledge remains incomplete and species richness is expected to increase as survey effort and taxonomic research continue.

The K3 Indicator adopts a precautionary approach by focusing on species supported by documented evidence and verified through available literature, taxonomic sources and consultation with UK Overseas Territory Governments and Administrations. While this approach may result in lower species totals than some previously published estimates, it provides a more robust and transparent baseline for tracking changes in the conservation status of endemic species over time.

3.6. Constraints

The development of Indicator K3 is constrained by the availability, quality and completeness of data on endemic species across the UK Overseas Territories (UKOTs). While considerable progress has been made in compiling and verifying endemic species records, knowledge gaps remain for some taxonomic groups, particularly those that are species rich, poorly studied or difficult to survey.

The indicator is dependent on the availability of IUCN Red List assessments. Many endemic species, particularly invertebrates, plants and marine taxa, have not yet been assessed and therefore cannot currently contribute to estimates of conservation status. As a result, the indicator is likely to provide a more complete picture of taxonomic groups that have received greater assessment effort.

The ongoing development of the endemic species inventory is dependent upon access to published evidence and a continual increase in the number and frequency of Red List assessments. The pace at which the indicator can be updated is therefore influenced by the availability of these resources and the capacity of partners to contribute to data verification and review processes.

Despite these constraints, JNCC considers the indicator to provide the best available assessment of the status of endemic and threatened species across the UKOTs and a robust baseline against which future changes can be measured.

3.6.1. Red List Assessments

Threatened status is based on the IUCN Red List global assessments. At the time of publication, 632 endemic species in the UKOTs have been assessed on the Red List, an increase of 487 assessments since the publication of the RSPB Stocktake in 2014.

Red List assessments are based on a variety of information, including species distribution, habitat and ecology, threats to species, and current conservation methods. Due to the unique and often elusive nature of the endemic species included in this indicator, and the limited amount of capacity and funding for research in the UKOTs, the likelihood of comprehensive data being available for all species in the near future is limited. Over the lifetime of this indicator further endemic species will undergo Red List assessments; however, it is acknowledged that there are limitations to developing a complete dataset.

Assessment coverage is uneven across taxonomic groups. Vertebrate species generally have higher levels of assessment coverage than plants, invertebrates and marine taxa. Consequently, assessed species may not be fully representative of all endemic biodiversity present across the UKOTs. As additional assessments are completed, the proportion of threatened species may change, reflecting improved knowledge rather than genuine changes in conservation status.

Over the lifetime of this indicator, further endemic species are expected to undergo Red List assessment and the endemic species inventory will continue to be refined. Whilst these developments are likely to improve the completeness and reliability of the dataset, some uncertainty will remain due to ongoing species discovery, taxonomic revision and knowledge gaps for less well-studied groups.

3.6.2. Knowledge gaps and bias

Every UK Overseas Territory (UKOT) supports endemic species, although the number of known endemic species varies considerably between territories. These differences partly reflect genuine variation in biodiversity and endemism across geographic regions, but also differences in survey effort, taxonomic research and the availability of species records.

As with most biodiversity datasets, knowledge gaps are not evenly distributed across taxonomic groups. Assessment coverage is generally higher for vertebrates, particularly birds and reptiles, than for many invertebrate, plant and marine taxa. Similarly, terrestrial species are typically better represented than marine species, while lower plants, fungi and other less well-studied groups remain underrepresented. Some taxonomic groups also contain relatively few assessed species, limiting the extent to which robust conclusions can be drawn about their conservation status.

These biases are reflected in the current K3 endemic species dataset and in the distribution of IUCN Red List assessments. The absence of assessments for some groups should not be interpreted as evidence of lower conservation concern, but rather as a reflection of limited available information and assessment effort. Increased survey work, taxonomic research and Red List assessments are therefore likely to influence future versions of the indicator.

The indicator should be interpreted as representing the best available evidence on the status of UKOT endemic species at the time of publication. JNCC will continue to work with UKOT Governments and Administrations, researchers and taxonomic experts to address knowledge gaps, improve assessment coverage and enhance the completeness of the endemic species dataset over time.

3.7. Quality control and quality assurance

The work on Indicator K3 is compliant with JNCC's Evidence Quality Assurance Policy. JNCC's risk assessment recognises that Indicator K3 could have a moderate impact if used to inform UK Overseas Territory (UKOT) policy decisions, biodiversity conservation priorities and funding bids. The indicator methodology, dataset and associated outputs have therefore been subject to internal quality assurance and review by senior JNCC staff prior to publication.

3.8. Update frequency

JNCC will continue to maintain and develop Indicator K3 through periodic reviews of the IUCN Red List and other relevant evidence sources. An annual review will be undertaken to identify newly published Red List assessments, newly described endemic species, and any taxonomic revisions. These reviews will help ensure that significant changes are captured and incorporated into the endemic species inventory where appropriate.

Given the relatively slow pace at which new Red List assessments become available for many UKOT endemic species, it is anticipated that substantive updates to the indicator will be undertaken at longer intervals. Future publication frequency will be kept under review and will depend on the availability of new assessments and user requirements. This approach will ensure that updates provide meaningful evidence of change while making efficient use of available resources.

The current dataset provides a robust baseline against which future changes in assessment coverage and threatened status can be monitored. As additional endemic species are described, verified and assessed, future iterations of the indicator will improve understanding of extinction risk and conservation outcomes for endemic species across the UK Overseas Territories.

4. Bibliography

Churchyard, T., Eaton, M., Hall, J., Millett, J., Farr, A., Cuthbert, R. and Stringer, C. 2014. [The UK's wildlife overseas: a stocktake of nature in our Overseas Territories.](#), RSPB, Sandy, UK.

Convention on Biological Diversity (CBD). 2022. Decision adopted by the Conference of the Parties to the Convention on Biological Diversity: 15/4. Kunming-Montreal Global Biodiversity Framework. CBD/COP/DEC/15/4 <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>

Defra. 2018. A Green Future: Our 25 Year Plan to Improve the Environment. <https://www.gov.uk/government/publications/25-year-environment-plan>

Defra. 2019. Measuring environmental change: outcome indicator framework for the 25 Year Environment Plan. <https://www.gov.uk/government/publications/25-year-environmentplan>

Defra. 2023. Environmental Improvement Plan 2023. <https://www.gov.uk/government/publications/environmental-improvement-plan>

Defra. 2025a. Environmental Improvement Plan 2025. Available at: <https://www.gov.uk/government/publications/environmental-improvement-plan-2025>

Defra. 2025b. Environmental Indicator Framework. Available at: <https://www.gov.uk/government/collections/environmental-indicator-framework>

Defra, 2025. UK Overseas Territories Biodiversity Strategy. Available at: <https://www.gov.uk/government/publications/uk-overseas-territories-biodiversity-strategy/uk-overseas-territories-biodiversity-strategy>

IUCN. 2022. Summary Statistics. <https://www.iucnredlist.org/resources/summary-statistics>

IUCN Standards and Petitions Committee. 2022. Guidelines for Using the IUCN Red List Categories and Criteria. Version 15.1. Prepared by the Standards and Petitions Committee. <https://www.iucnredlist.org/documents/RedListGuidelines.pdf>.

IUCN. 2012. IUCN Red List Categories and Criteria: Version 3.1. Second edition. Gland, Switzerland and Cambridge, UK: IUCN. iv + 32pp.

Clubbe, C., *et al.* 2020. Current knowledge, status, and future for plant and fungal diversity in Great Britain and the UK Overseas Territories. *Plants, People, Planet*. Volume 3, Issue 2. First Published 20 September 2020: <https://doi.org/10.1002/ppp3.10142>.