



**Department of Conservation & Fisheries Ascension Island Government**

## **Policy on the expansion of the National Protected Areas network for biodiversity protection in Ascension**

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<b>ISSUE DATE:</b>	<b>17/5/2023</b>
<b>VERSION NO:</b>	<b>0.1</b>
<b>STATUS:</b>	<b>Draft</b>
<b>DATE OF LAST REVIEW:</b>	
<b>DATE OF NEXT REVIEW:</b>	

## Contents

Background.....	2
Context.....	2
Issue.....	4
Principles and Objectives.....	4
Application of Policy.....	5

## Background

Protected Areas are a fundamental means of conserving biodiversity and a core element of the Ascension Island Biodiversity Strategy and Action Plan.

Section 3 of the National Protected Areas Ordinance, 2003, provides powers for the Governor to declare by order any area of Ascension as a Protected Area. Section 8 of the Ordinance provides the Governor with powers to introduce regulations to achieve the purpose of the Ordinance.

There are currently six Nature Reserves on Ascension designated under the National Protected Areas Order, 2014. According to the legislation, the designation of a Nature Reserve should be ‘primarily for the purpose of maintaining a proper balance in the natural ecology of the area.’ The six existing Nature Reserves were designed to protect the most important turtle and seabird nesting sites on Ascension.

Masked boobies and Ascension frigatebirds have resumed breeding on the Ascension mainland following the eradication of feral cats in 2004. Since then, they have increased in numbers and expanded their range.

There are 30 species of terrestrial invertebrates endemic to Ascension (found only in Ascension and nowhere else on earth). Six of these are listed as Critically Endangered, others are yet to be formally assessed. Whilst some of these invertebrates are found within existing Protected Areas, no Protected Areas have been specifically designed to protect invertebrates.

There are seven endemic species of higher plant on Ascension. The core range of six of these species is primarily within Green Mountain National Park. The seventh, the Ascension spurge, is found in lower-lying areas and, though some populations are found within existing Nature Reserves, a large proportion of this Critically Endangered plant’s distribution is outside of Protected Areas.

## Context

The UK is party to the Convention on Biological Diversity and it has been extended to Ascension. The post-2020 Global Framework for Biodiversity agreed by the Conference of Parties in 2022 contains a global target to include 30% of terrestrial and marine habitats within effectively and equitably managed, ecologically representative and well-connected systems of Protected Areas by 2030. Currently 19.5% of Ascension’s land area is designated within a

Protected Area. This provides a stimulus to consider an increase in Protected Area coverage on the island.

As part of the UK Government's 25 Year Environment Plan Outcome Indicator Framework, the Joint Nature Conservancy Council is compiling and publishing an indicator on the extent of Protected Areas in the Overseas Territories and developing a further indicator on their condition. These are the only two indicators currently proposed to measure biodiversity protection in the Overseas Territories within the Framework. As a result, Protected Area extent will be given significant prominence in assessing the level of biodiversity protection in Ascension.

The need to review and potentially extend the existing protected area network is included in the Ascension Island Biodiversity Strategy and Action Plan.

The design of the Protected Areas network created in 2014 did not include any consideration of critical sites for endemic invertebrates. A comprehensive survey of invertebrates on Ascension has been conducted as part of a Darwin Plus-funded project and this has provided an evidence base for the distribution of endemic invertebrate species. Some critical sites for endemic invertebrates are within existing Protected Areas, but many sites are outside of the existing network.

The distribution of nesting masked boobies has spread beyond the boundaries of the Letterbox Nature Reserve since it was designated in 2014. Surveys of nest locations have been conducted using vantage points and drones to map their current distribution. Modelling of habitat suitability and the rate at which masked boobies and frigatebirds are expanding their range allow us to predict their likely future spread.

In 2014 no Protected Areas were specifically created to protect the Ascension spurge. A significant number of plants (representing between 8 and 57% of the world's population in different years) is found around Hummock Point and Echo Canyon, outside of any Protected Area. This is the second most important site for the species; only areas within the USSF Base contain a higher number of plants.

## Issue

The current Protected Areas network does not reflect the distribution of important areas for biodiversity on Ascension. The habitats of endemic invertebrates are not well represented, globally-significant plant populations are not within Protected Areas and seabirds are expanding beyond the current Nature Reserve boundaries. This has the following negative consequences:

Crucial areas for biodiversity are vulnerable to damaging activities. There is currently no legislative or policy framework governing development or land use in areas of Ascension outside of Protected Areas, meaning the conservation value of these sites may not be recognised or protected.

It is more difficult to attract external funding to support work outside of Protected Areas. Designation indicates the importance of an area for biodiversity and some funding streams use it as criterion for supporting projects. Protection in law also provides reassurance to external funders that resources devoted to restoring or conserving an area will not be undermined by future development or damaging land use.

At a strategic level, the work of the AIG Conservation and Fisheries Directorate (AIGCFD) is guided by Protected Area Management Plans. Creating and expanding Protected Areas allows the AIGCFD to prioritise effectively and direct resources into managing these areas.

## Principles and Objectives

Ascension should seek to include all of the most important sites for biodiversity in an effectively managed, representative and well-connected Protected Area network. This will reduce local pressures on these areas and increase their resilience to survive threats such as climate change. A strong Protected Area network will make a significant contribution to achieving the objectives of the Ascension Biodiversity Strategy and Action Plan and the Convention on Biological Diversity to avoid species loss.

All biological taxa should be treated equally. Endemic invertebrates and plants should be valued as highly as more charismatic vertebrate species and afforded the same level of protection.

The boundary of a Protected Area should be based on evidence of the distribution of species of conservation importance and the habitats that support them. Where the range of a species is expanding, habitat suitability models should be used to predict the future distribution of a species and the Protected Areas designed to include this future range.

The extent of a Protected Area should be sufficient to include habitats of high conservation value as well as adjacent land critical to the natural processes that maintain those habitats; for example, upslope areas that are responsible for regulating waterflow into the habitat.

Where possible, small isolated patches of high conservation value habitat should be included within a single Protected Area and efforts made to allow functional connectivity between them. The purpose of this is to create large, connected metapopulations of species that are more resilient to threats.

Management plans should be in place for all Protected Areas. These should state the objectives of the site, state the relevant legislation and policy that apply and provide strategic prioritisation of management actions. The plans will help to guide the work of AIGCFD and attract external funding.

## Application of Policy

The Protected Areas network on Ascension Island will be expanded through the changes described below. A description of the species present in the proposed Nature Reserves and the evidence base for their boundaries are presented in Appendices to this policy.

- Two new Nature Reserves - South Coast and Bat Cave – will be created for the purpose of protecting endemic invertebrate species and their habitat (Appendices 2 and 4).
- The existing North East Bay Nature Reserve will be renamed the North East Coast Nature Reserve, and extended along the coast to the northwest and southeast of the Bay. This will encompass suitable habitat and important populations of endemic invertebrates (Appendix 3).
- The Letterbox Nature Reserve will be expanded to include the current and predicted future nesting distribution of seabirds (Appendix 5).
- A new Nature Reserve at Hummock Point will be created for the purpose of protected Ascension spurge (Appendix 6).

The new and expanded Nature Reserves will be designated by a new Order under the National Protected Areas Ordinance, 2003.

The definition of a Protected Area in the National Protected Areas Regulations, 2014, will be amended to include Protected Areas designated under the new order. As a result, the general prohibitions in Section 3 of the National Protected Areas Regulations, 2014, will apply to the new nature reserves and the extension of the North East Bay and Letterbox Nature Reserves.

The regulations applying to Seabird Nature Reserves (Section 6 of the National Protected Areas Regulations, 2014) will apply to the Letterbox Nature Reserve extension (Appendix 3). The regulations applying to the Beach Nature Reserves (Section 5 of the National Protected Areas Regulations, 2014) will apply to the North East Coast Nature Reserve (Appendix 2). No new regulations are proposed to apply specifically to the new Invertebrate or Ascension spurge Nature Reserves and only the general prohibitions will apply at these sites.

The Letterbox Nature Reserve and Beach Nature Reserves Management Plans that are currently out to public consultation include the proposed new boundaries for the Letterbox and North East Coast Nature Reserves. Both Plans incorporate targets and actions to protect the endemic invertebrate species found in the extension areas.

Management Plans will be prepared for the new Invertebrate Nature Reserves and the Ascension spurge Nature Reserve. The Management Plans will set out the objectives of the Nature Reserves, policy on how the regulations will be implemented and the management actions that will be taken to achieve the sites' objectives over the next five years. Summaries of the proposed management actions and targets for these sites are presented in Appendices 2,4 and 6.

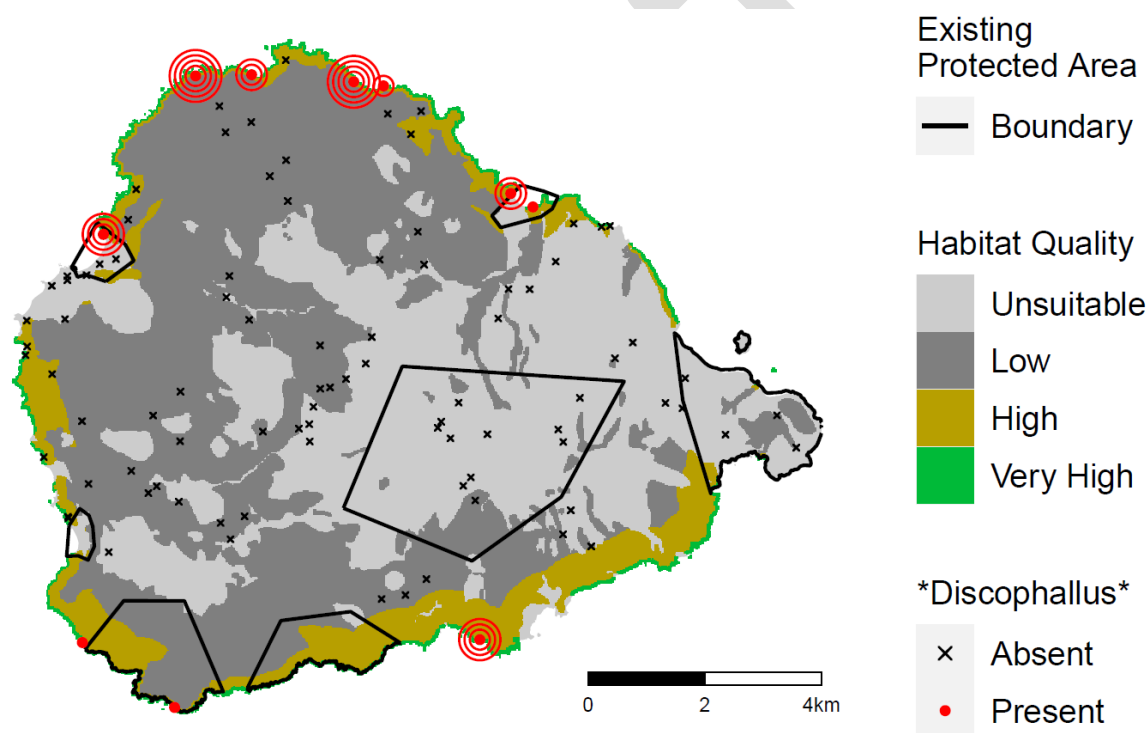
If the three new Nature Reserves and two expansions are approved, in total approximately 27% of Ascension's land area will be within Protected Areas.

## Appendix 1 – Distribution of scaly crickets on Ascension

All five known species of the *Discophallus* genus of scaly cricket are endemic to Ascension. The three *Discophallus* species found on the mainland meet the criteria for being listed as Critically Endangered, yet neither they nor their habitats are currently protected.

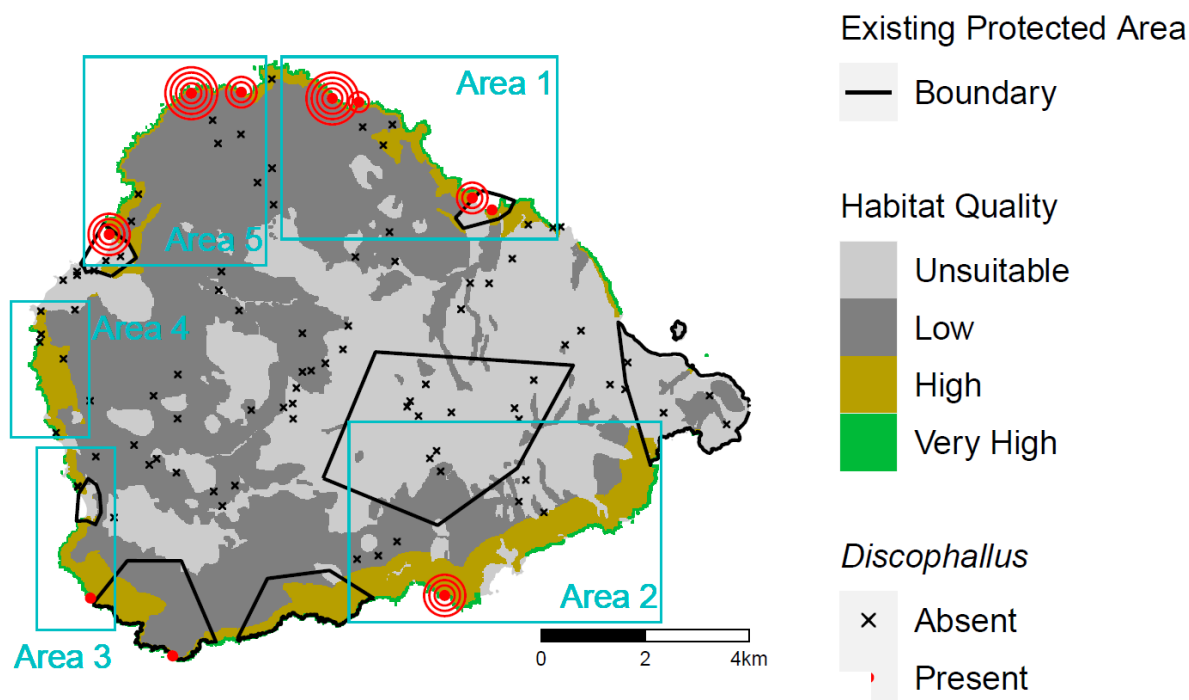
The distribution of scaly crickets around Ascension has been established using baited traps and historical records. A strong association with rocky beaches was identified and further trapping effort was concentrated in areas containing this habitat.

The characteristics of the sites that contained scaly crickets and those that didn't were compared to identify what constitutes suitable habitat for these species. Key determinants of habitat suitability were proximity to the coast, age of lava fields and the presence of invasive cricket species. GIS software was then used to map the distribution of suitable habitat around the island using these criteria.



The best areas of habitat are concentrated in five areas around the coast of Ascension as shown in the map below:





The suitability of each of these areas as potential new Nature Reserves for scaly crickets was considered. Areas 1 and 2 are suitable and are discussed further in Appendices 2 and 3. Areas 3-5 were rejected for the reasons described below.

Area	Scaly cricket distribution	Existing protection	Conflicts with other land occupiers	Recommended as a Nature Reserve
Area 1	High abundance of scaly crickets recorded by trapping at two coastal sampling sites in the north and south of the area. Large extent of high and very high-quality habitat.	Some high-quality habitat is within the existing NE Bay Nature Reserve, but most is outside of this boundary.	Two Encompass LOPs slightly overlap with the edge of this area, and there are beach huts within the existing North East Bay Nature Reserve. There is no other land use within this area.	Yes. <ul style="list-style-type: none"> <li>High abundance of crickets and extensive good habitat.</li> <li>No conflicts with other land users in the core area.</li> <li>Ties in with existing Nature Reserve.</li> </ul>
Area 2	High abundance of scaly crickets recorded by trapping at the coast near Pillar Bay. Largest extent of high and very high-quality habitat on the island.	A significant area of high-quality habitat is within the existing Waterside and Letterbox Nature Reserves, but most is unprotected.	US lease land covers the western edge of this area within the existing Waterside Nature Reserve, but there is no other current land use in this area.	Yes. <ul style="list-style-type: none"> <li>Most extensive area of scaly cricket habitat on the island.</li> <li>No conflicts with other land users.</li> </ul>
Area 3	Scaly crickets are present in this area, though not in high abundance. There is a large extent of high or very high-quality habitat.	A significant area of high-quality habitat is within the existing Mars Bay Nature Reserve, but some is unprotected.	Almost the entire area of high-quality habitat outside of the Mars Bay Nature Reserve is within US Lease Land.	No. <ul style="list-style-type: none"> <li>Density of crickets is relatively low.</li> <li>Larger areas of high-quality habitat exist in other parts of the island.</li> <li>Most of the unprotected habitat is within US Lease Land.</li> </ul>
Area 4	No scaly crickets recorded in this area. High quality habitat is present, but large numbers of non-native invertebrates present close to the settlements have	None of this area is protected.	Land in this area is not occupied by other users.	No. <ul style="list-style-type: none"> <li>Scaly crickets are not present.</li> <li>Control of non-native invertebrates to allow their recolonisation would be</li> </ul>

	probably displaced scaly crickets.			difficult so close to settlements.
Area 5	High abundance of scaly crickets recorded by trapping at Long Beach and on the North Coast. Good area of high-quality habitat around Long Beach. Only a narrow band of high-quality habitat along the north coast with little potential for expansion inland.	Some high-quality habitat and site where high abundance of scaly crickets was found is within the existing Long Beach Nature Reserve.	Sites of high cricket abundance on the north coast are close to or within Encompass LOP. Some of the high-quality habitat to the north of Long Beach is within US Lease Land.	No. <ul style="list-style-type: none"> <li>▪ One site of high scaly cricket abundance and some high-quality habitat is already protected within Long Beach Nature Reserve.</li> <li>▪ Little scope to expand cricket habitat beyond the immediate coast.</li> <li>▪ Potential conflicts with other land users.</li> </ul>

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## Appendix 2 – South Coast Nature Reserve

### Rationale for designating the Nature Reserve

The proposed South Coast Nature Reserve incorporates the best area of habitat for scaly crickets on Ascension. Designating it as a Nature Reserve would ensure any proposed change in land use or development in the area would be assessed to ensure it didn't harm scaly crickets or their habitat.

The designation would make it easier for AIGCFD to attract external funding and prioritise its own resources to develop and deploy methods to control invasive, non-native crickets and shrubs. This will not only secure the current populations of scaly crickets, but could also allow the species to regain areas of suitable habitat lost to invasives and so make the species more resilient and less vulnerable to extinction.

### Priority species and habitats included in the reserve

- **Species**

Three species of scaly cricket:

***Discophallus ascension*, *Discophallus myrtleae*, *Discophallus pallidus***

Endemic. IUCN Red List - currently unlisted but would be classed as Critically Endangered under criterion B1ab(iii) + B2ab(iii)



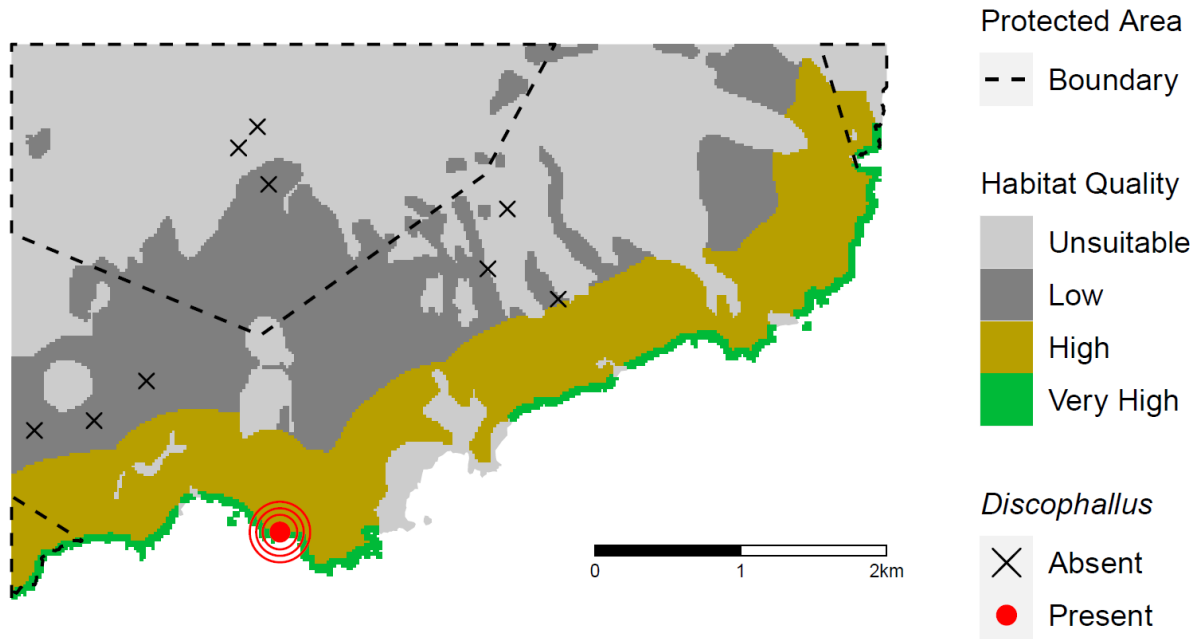
- **Habitats**

**Rocky beach** – pebble beaches found in coves along the coast that are a stronghold for *Discophallus* populations.

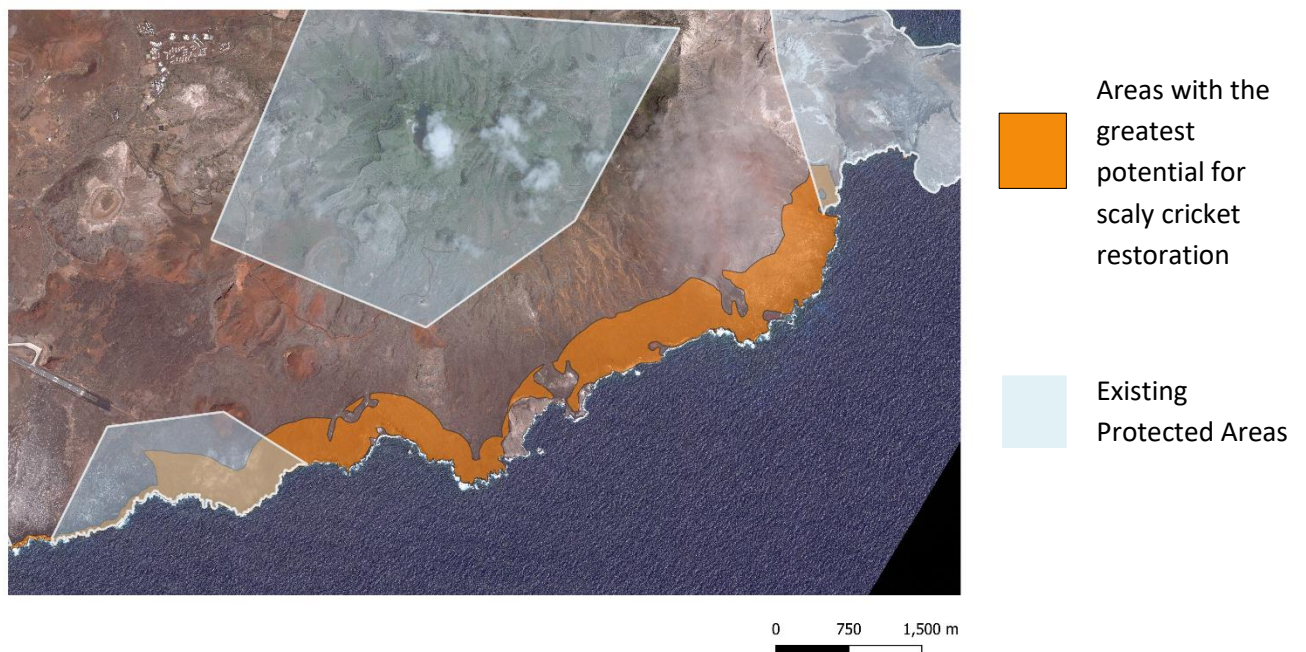
**Lava fields** – Lava fields approximately 0.5 million years old extending inland from the coast to the 500m altitude contour.

### Distribution of priority species and habitats

The south coast has the largest extent of existing habitat for scaly crickets and the greatest potential to restore scaly crickets to their former range through targeted control of non-native species.



The most important factor limiting scaly cricket populations below their natural abundance is the presence of non-native, invasive crickets. The current distribution of scaly crickets is approximately 46% of their former range as a result of the invasives. Active management of sites could allow scaly crickets to recolonise their previous range. The areas with the greatest potential for scaly cricket restoration were modelled based on habitat suitability, distance to access points for management and distance from settlements. The map below shows the areas with the greatest potential for scaly cricket restoration.



### Proposed Nature Reserve Boundary

The proposed boundary of the new South Coast Nature Reserve is shown on the map below.



It was derived from the maps above and designed using the following criteria:

- Coverage the most important areas of suitable scaly cricket habitat
- Coverage of areas with the greatest potential to expand scaly cricket populations through the control of non-native species.
- Creation of a coherent, continuous area with as simple an outline as possible.
- Avoidance of any built infrastructure not within priority habitat areas.

### **Potential Conflict with Existing Land Use**

All of the land within the proposed South Coast Nature Reserve is managed by AIG on behalf of the Crown. There are no existing Land Occupancy Permits relating to the land within the proposed boundary.

The Letterbox walks to Coconaut Bay, Crater Cliff, Crystal Bay and Pillar Bay pass through the proposed Nature Reserve. None of the proposed prohibitions would affect people's ability to enjoy these walks. Many of the Letterbox Walks go through existing Nature Reserves with no impact on walkers. Designation as a Nature Reserve would ensure the natural features of the area, which make it popular with walkers, are maintained.

An old vehicle track runs from the NASA Road to Crystal Bay. This is now in a state of disrepair and is unsafe for vehicles. The track would not be designated under section 3(f) of the Protected Areas Regulations meaning vehicles could not be driven anywhere within the proposed South Coast Nature Reserve. Since no driving currently takes place and would be unsafe, this will not restrict people's activities.

The track to Crystal Bay was constructed for the laying and maintenance of an earth cable from the former NASA building. This is no longer in use. The cable will not be removed, but following designation, vehicle access to the cable would not be possible without permission from the Administrator.



## **Proposed National Protected Area Regulations Applying to the new Nature Reserve**

The general prohibitions in Section 3 of the National Protected Areas Regulations, 2014, will apply to the new Nature Reserve. No specific additional prohibitions will be applied to the South Coast Nature Reserve because the general prohibitions provide sufficient protection against potentially damaging activities within the Nature Reserve.

### **General prohibitions:**

All or any of the following are prohibited within the Nature Reserves if done without the prior permission of the Administrator or Reserve Warden:

- a) any development;
- b) the improving or altering of any existing structure;
- c) the removal of sand, soil or rock;
- d) the intentional or reckless disturbance to, or damage or injury to, any protected species;
- e) the dumping of refuse, chemicals, abandoned vehicles, scrap metal, mining spoils, toxic or other wastes, bilges, oil and other petroleum products, pesticides and other items harmful to animals or plants, or unsightly items;
- f) the driving or riding of motor vehicles other than on other than on a designated road or track or in a signed parking zone;
- g) parking a vehicle, except in a signed parking zone;
- h) the making of fires without a permit other than in a portable stove or grill, or in designated fire pits;
- i) playing any musical instrument, radio, sound system, television or other item which produces or reproduces music, to the annoyance of other persons;
- j) the use or possession by any person, other than a Warden acting in the course of his or her duties, of any type of firearm, air gun, cross bow, bow and arrow or slingshot;

It is not intended that any roads, tracks, parking areas or fire pits will be designated within the South Coast Nature Reserve.

### **Proposed Objectives of the Nature Reserve**

- Scaly crickets extend their range into suitable inland habitat following the control of invasive, non-native crickets.
- No non-native shrubs are present in the scaly cricket habitat within the Nature Reserve.
- No development that would damage the scaly crickets or their habitats will be permitted within the Nature Reserve.
- There is a high level of awareness amongst the Ascension community and visitors to the island about the scaly crickets and the importance of the South Coast Nature Reserve for protecting them.

### **Proposed Management Actions**

- Control non-native crickets through the use of targeted trapping effort or the development of biocontrol agents.
- Remove non-native shrubs from all areas of scaly cricket habitat through herbicide application or mechanical control.

- Carry out Environmental Impact Assessments for all proposed developments within the Nature Reserve.
- Create public engagement material, including signage at access points into the reserve, celebrating Ascension's unique scaly crickets.

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## Appendix 3 – Extension of North East Bay Nature Reserve to form North East Coast Nature Reserve

### Rationale for extending the Nature Reserve

North East Bay sits at the centre of what we now know to be important habitat for Ascension's endemic scaly crickets. North East Bay is already designated as a Nature Reserve for green turtles and land crabs and the simplest way to provide protection for the scaly crickets is to extend the existing reserve along the coast.

### Priority species and habitats included in the reserve

#### ▪ Species

**Green turtle** (*Chelonia mydas*) – Listed in the Wildlife Protection Ordinance, 2013. Endemic. IUCN Red List: Endangered.

**Land crab** (*Johngarthia lagostoma*) – Listed in the Wildlife Protection Ordinance, 2013. IUCN Red List: Not Evaluated.

**Scaly cricket** (*Discophallus ascension*, *D. myrtleae*, *D. pallidus*) – Endemic. IUCN Red List - currently unlisted but would be classed as Critically Endangered under criterion B1ab(iii) + B2ab(iii)

#### ▪ Habitats

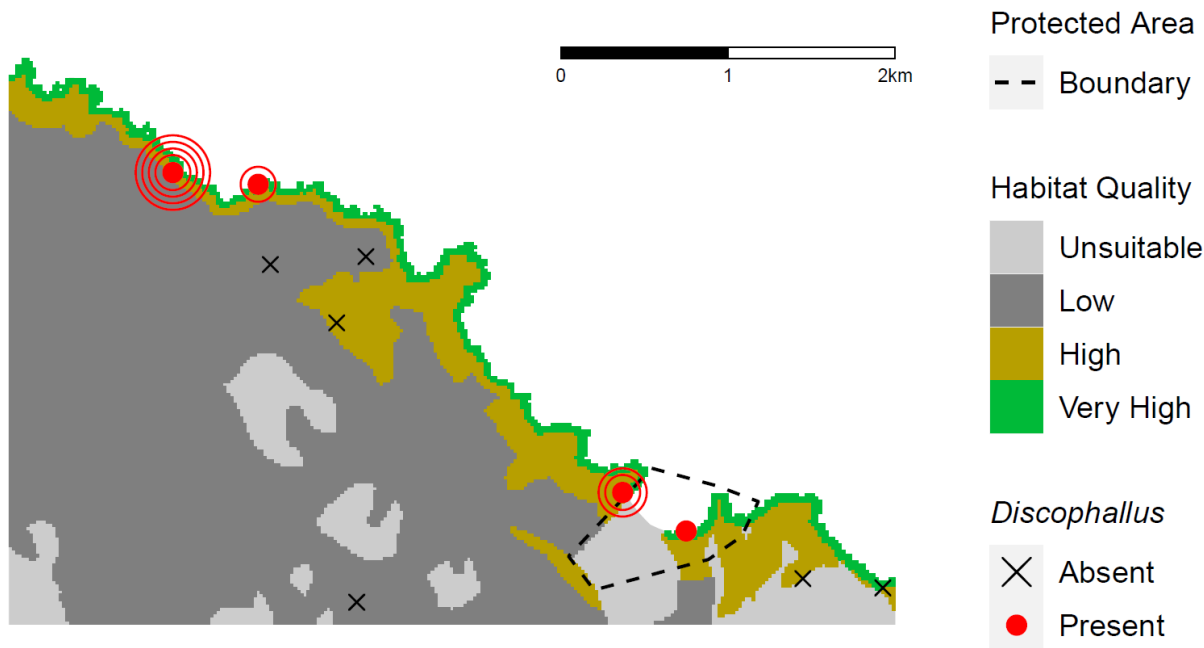
**Sandy Beach** – fine beach sand used by nesting turtles and spawning land crabs.

**Rocky beach** – pebble beaches found in small coves along the coast that are a stronghold for scaly cricket populations.

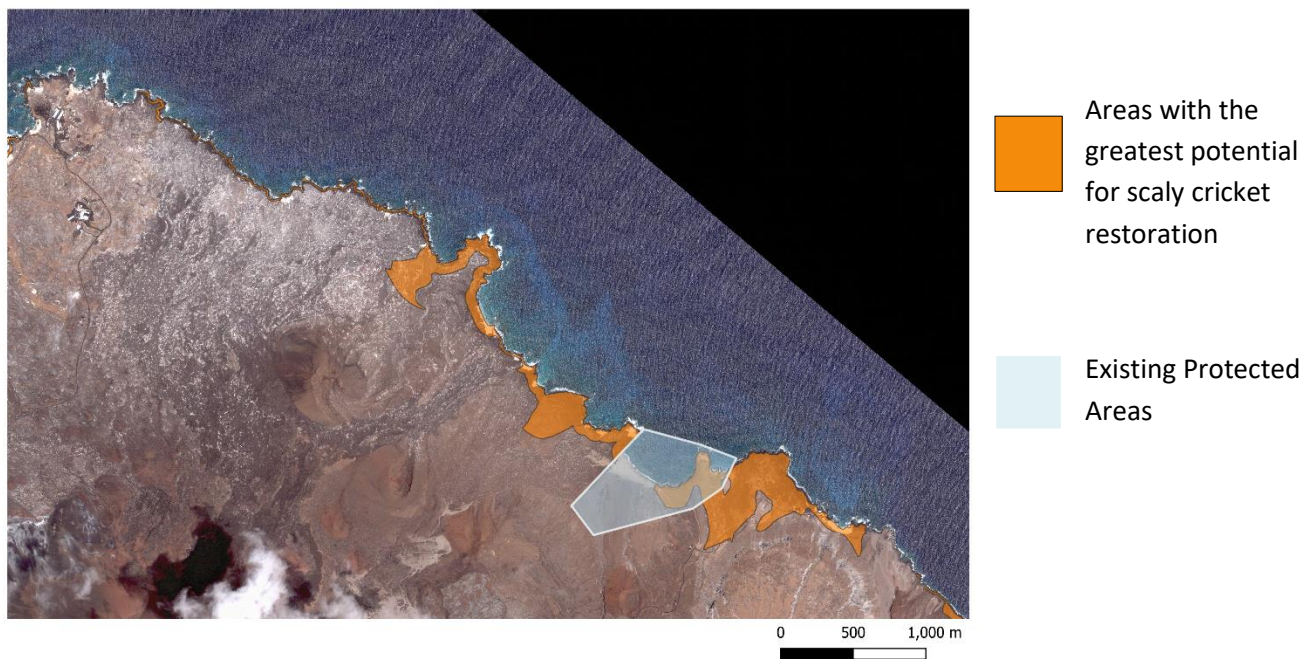
**Lava fields** – Lava fields approximately 0.5 million years old extending inland from the coast to the 500m altitude contour.

### Distribution of priority species and habitats

A high abundance of scaly crickets and a large extent of high-quality habitat for these species is present along the north east coast.



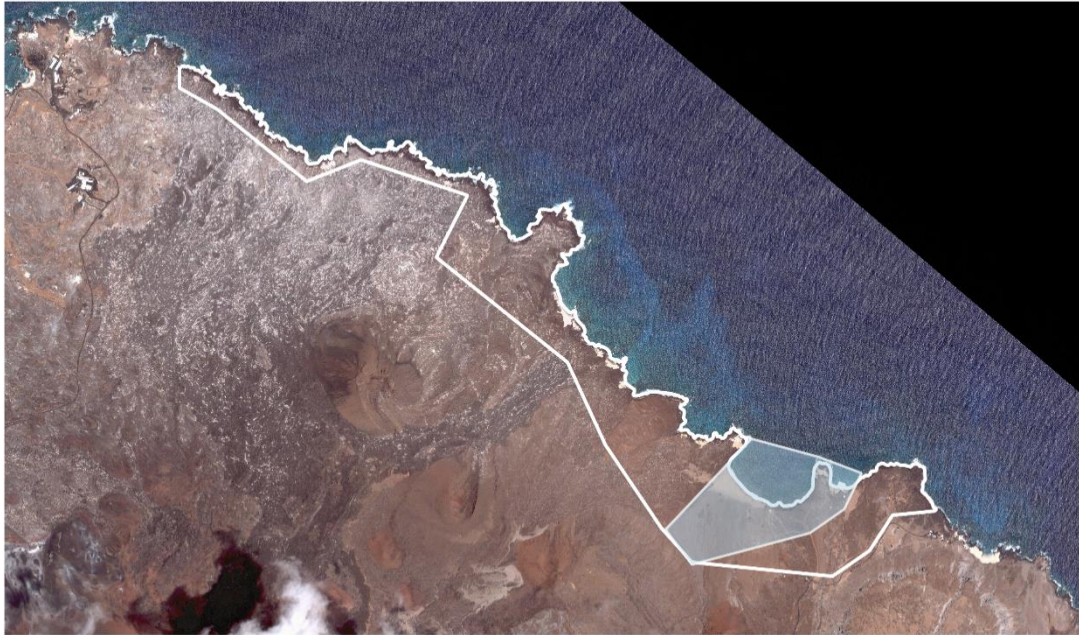
In addition, modelling based on habitat suitability, distance to access points for management and distance from settlements suggests there is great potential to expand scaly cricket distribution in this area. The map below shows the areas with the greatest potential for scaly cricket restoration.



### Proposed Nature Reserve Boundary

The map below shows the current extent of the North East Bay Nature Reserve (shaded area) and the proposed extension (white boundary).





The extension area was derived from the maps above and was designed using the following criteria:

- Coverage the most important areas of suitable scaly cricket habitat
- Coverage of areas with the greatest potential to expand scaly cricket populations through the control of non-native species.
- Creation of a coherent, continuous area with as simple an outline as possible.
- Avoidance of any built infrastructure (powerhouse and transmission lines in the north and Ariane site in the south).

### **Proposed National Protected Area Regulations Applying to the Extension**

No new regulations are proposed because the existing general prohibitions in Section 3 and the Beach Nature Reserve regulations in Section 5 of the National Protected Areas Regulations sufficiently restrict potentially damaging activities within the extended Nature Reserve.

All or any of the following are prohibited within the three Beach Nature Reserves if done without the prior permission of the Administrator or Reserve Warden:

- any development;
- the improving or altering of any existing structure;
- the removal of sand, soil or rock;
- the intentional or reckless disturbance to, or damage or injury to, any protected species;
- the dumping of refuse, chemicals, abandoned vehicles, scrap metal, mining spoils, toxic or other wastes, bilges, oil and other petroleum products, pesticides and other items harmful to animals or plants, or unsightly items;
- the driving or riding of motor vehicles other than on other than on a designated road or track or in a signed parking zone;

- parking a vehicle, except in a signed parking zone;
- the making of fires without a permit other than in a portable stove or grill, or in designated fire pits;
- playing any musical instrument, radio, sound system, television or other item which produces or reproduces music, to the annoyance of other persons;
- the use or possession by any person, other than a Warden acting in the course of his or her duties, of any type of firearm, air gun, cross bow, bow and arrow or slingshot;
- the occupation of beach huts after 9:00p.m. during turtle season;
- the lighting of beach huts after 9:00p.m. during turtle season;
- allowing of unaccompanied dogs;
- allowing dogs off their leash between sunset and sunrise;
- the driving or parking of any motor vehicle on the beach;
- water skiing and the operating of jet skis during turtle season;
- pitching or erecting any tent on the beach during turtle season;
- the installation of artificial lighting fixtures that are directly visible from the beach, or which indirectly illuminate the beach.

### Potential Conflict with Existing Land Use

All of the land within the proposed extension to the North Coast Nature Reserve is managed by AIG on behalf of the Crown. The MOD have a LOP for the Broken Tooth Firing Range that covers the existing North East Bay Nature Reserve and almost all of the proposed extension (red boundary in the map below). Encompass have LOPs that overlap slightly with the western and eastern edges of the proposed extension.



The boundary of the Nature Reserve extension was intentionally drawn to avoid installations operated by Encompass and Sure to the north and south of the Nature Reserve.

The Letterbox walk to Porpoise Point goes through the proposed extension to the Nature Reserve. None of the prohibitions applying to the Nature Reserve will affect people's ability to enjoy the walk.

The coastline around North East Bay is used by rock fishers. Some of this area is already within the existing Nature Reserve and none of the prohibitions applying to the Nature Reserve affect people's ability to engage in this activity. The extension of the Nature Reserve along the coast will similarly not conflict with people's ability to fish in the area.

### **Proposed objectives and management actions of the Nature Reserve**

The draft Beach Nature Reserves Management Plan incorporates objectives and actions for the extended North Coast Nature Reserve.

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## Appendix 4 – Bat Cave Nature Reserve

### Rationale for designating the Nature Reserve

Bat cave contains a unique assemblage of Ascension's endemic invertebrate fauna and is the only known location in the world where the sheet-weaver spider *Catonetria caeca* can be found.

The encroachment of non-native shrubs and trees or any change in land use in the area could threaten the integrity of the cave's roof and walls. The designation of Bat Cave as a Nature Reserve would help to target external funding and resources to prevent the invasion of non-native plants and would mean any land use change would need to be assessed for its impact on the cave invertebrates.

Litter left by visitors to Bat Cave could attract rodents and cockroaches into the cave. Its status as a Nature Reserve, combined with education material, would make people more respectful of the cave and less likely to leave litter.

### Priority species and habitats included in the reserve

#### ▪ Species

**Sheet-weaver spider** (*Catonetria caeca*) - Endemic. IUCN Red list: Critically Endangered

**Ashmole's psocid** (*Troglotroctes ashmoleorum*) - Endemic. IUCN Red list: Vulnerable

**Springtail** (*Pseudosinella lava*) – Endemic. IUCN Red List - currently unlisted but would be classed as Critically Endangered under criterion B1ab(iii) + B2ab(iii)

#### ▪ Habitats

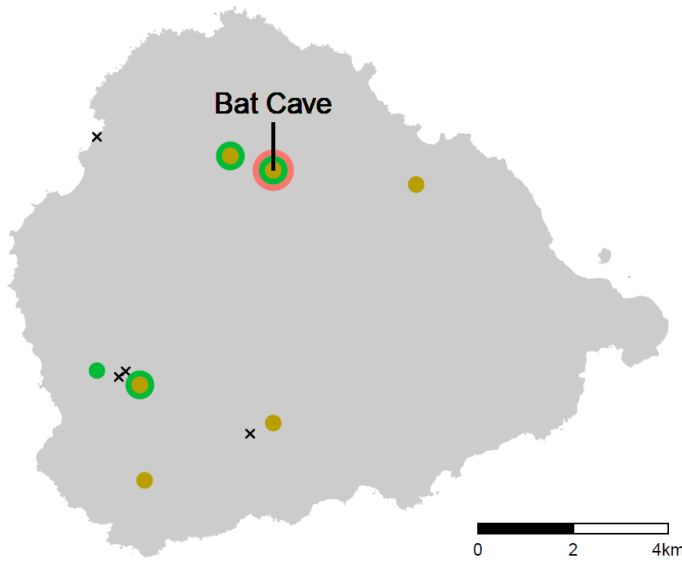
**Lava cave** – Subterranean chasm in basaltic lava. The highest invertebrate diversity is found in the dark areas of the cave away from the opening.

### Distribution of priority species and habitats

The importance of cave habitats to endemic invertebrate species was highlighted in previous surveys and confirmed by intensive trapping and searching undertaken in 2022 and 2023. Bat Cave is particularly important because it contains a large area of dark space where no outside light penetrates and its elevation (185m above sea level) means it will remain cooler than low-lying caves even as global temperatures rise.

Bat Cave is the only known location of the sheet-weaver spider *Catonetria caeca*. It is possible that the entire global population of this spider is found in this one cave. The psocid and springtail are more widespread across Ascension, but the springtail in particular is found in very high abundance at Bat Cave. Taken together, this makes Bat Cave the most important single site for endemic invertebrates on Ascension.





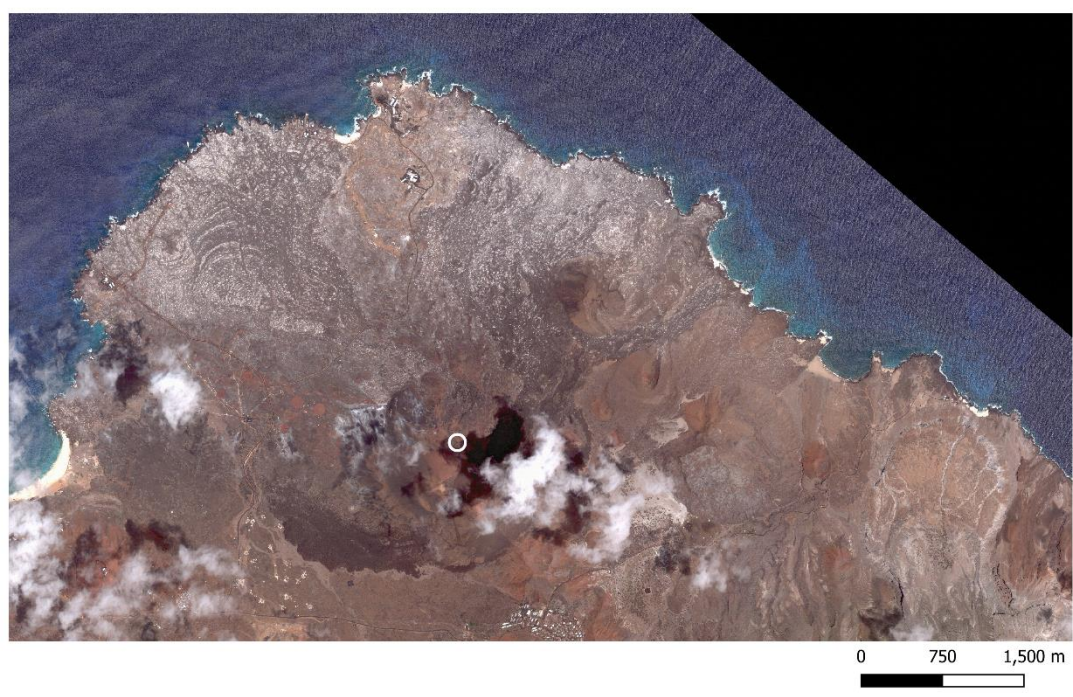
Endemics Present

- × No
- Yes

Species

- *Catonetria caeca*
- *Pseudosinella lava*
- *Troglotroctes ashmoleorum*

Proposed Nature Reserve Boundary





The proposed Nature Reserve boundary is a 75m radius circle around the opening to Bat Cave. This encompasses the extent of the subterranean opening and a 50m buffer around it. The buffer area is necessary to prevent the incursion of non-native plants or any development that could affect the integrity of the cave roof or walls.

### **Potential Conflict with Existing Land Use**

All of the land within the proposed Bat Cave Nature Reserve is managed by AIG on behalf of the Crown. There are no existing Land Occupancy Permits relating to the land within the proposed boundary.

The Letterbox walk to Bat Cave goes into the proposed Nature Reserve. None of the prohibitions applying to the Nature Reserve will affect people's ability to enjoy the walk. Many of the Letterbox Walks go through existing Nature Reserves with no impact on walkers and the cave's status as a Nature Reserve may enhance people's experience through interpretation signs that provide information about the unique species found there.

Trail bikers use the wider Sisters Peak area. Regulations would prohibit the use of bikes within the proposed Bat Cave Nature Reserve, but this would represent a small part of the area used by bikers and not limit their access to the slopes that are of greatest interest to them.

### **Proposed National Protected Area Regulations applying to the new Nature Reserve**

The general prohibitions in Section 3 of the National Protected Areas Regulations, 2014, will apply to the site. No specific additional prohibitions will be applied to the Nature Reserve because the general prohibitions sufficiently restrict potentially damaging activities within the Nature Reserve.

General Prohibitions:

All or any of the following are prohibited within the Nature Reserve if done without the prior permission of the Administrator or Reserve Warden:

- any development;
- the improving or altering of any existing structure;
- the removal of sand, soil or rock;
- the intentional or reckless disturbance to, or damage or injury to, any protected species;
- the dumping of refuse, chemicals, abandoned vehicles, scrap metal, mining spoils, toxic or other wastes, bilges, oil and other petroleum products, pesticides and other items harmful to animals or plants, or unsightly items;
- the driving or riding of motor vehicles other than on other than on a designated road or track or in a signed parking zone;
- parking a vehicle, except in a signed parking zone;
- the making of fires without a permit other than in a portable stove or grill, or in designated fire pits;
- playing any musical instrument, radio, sound system, television or other item which produces or reproduces music, to the annoyance of other persons;
- the use or possession by any person, other than a Warden acting in the course of his or her duties, of any type of firearm, air gun, cross bow, bow and arrow or slingshot;

It is not intended that any roads, tracks, parking areas or fire pits will be designated within the Bat Cave Nature Reserve.

#### **Proposed Objectives of the Nature Reserve**

- No loss of endemic invertebrate species from Bat Cave.
- No non-native shrubs or trees are present within the Nature Reserve.
- No development that would damage the cave habitat will be permitted within the Nature Reserve.
- No rodents are present within Bat Cave.
- No litter is present within Bat Cave
- There is a high level of awareness amongst the Ascension community and visitors about the importance of Bat Cave Nature Reserve for endemic invertebrates.

#### **Proposed Management Actions**

- Remove non-native shrubs and trees from the Nature Reserve through herbicide application or mechanical control.
- Create public engagement material, including signage at the entrance to Bat Cave, informing visitors of the importance of the site and asking them to avoid leaving litter.
- Annual litter clearance by AIGCFD.
- Deploy cockroach control measures that will not affect endemic invertebrates
- Consider targeted rodent control measures if necessary
- Carry out Environmental Impact Assessments for all proposed developments within or adjacent to the Nature Reserve.



## Appendix 5 – Extension to Letterbox Nature Reserve

### Rationale for designating the Nature Reserve

The Letterbox Nature Reserve was designed to protect nesting frigatebirds and masked boobies as they returned to the mainland following the feral cat eradication. Since the reserve was created in 2014, the frigatebird and masked booby populations have expanded their range and now a significant number of masked boobies nest outside of the Nature Reserve. Modelling work suggests that if current trends continue, frigatebirds will also expand beyond the existing Nature Reserve boundary. Extending the Nature Reserve will ensure that the nesting birds are protected now and into the future.

### Priority species and habitats included in the reserve

- **Species**

**Ascension frigatebird** – Listed in the Wildlife Protection Ordinance, 2013. Endemic. IUCN Red List Vulnerable.

**Masked booby** – Listed in the Wildlife Protection Ordinance, 2013. IUCN Red List Least Concern.

- **Habitats**

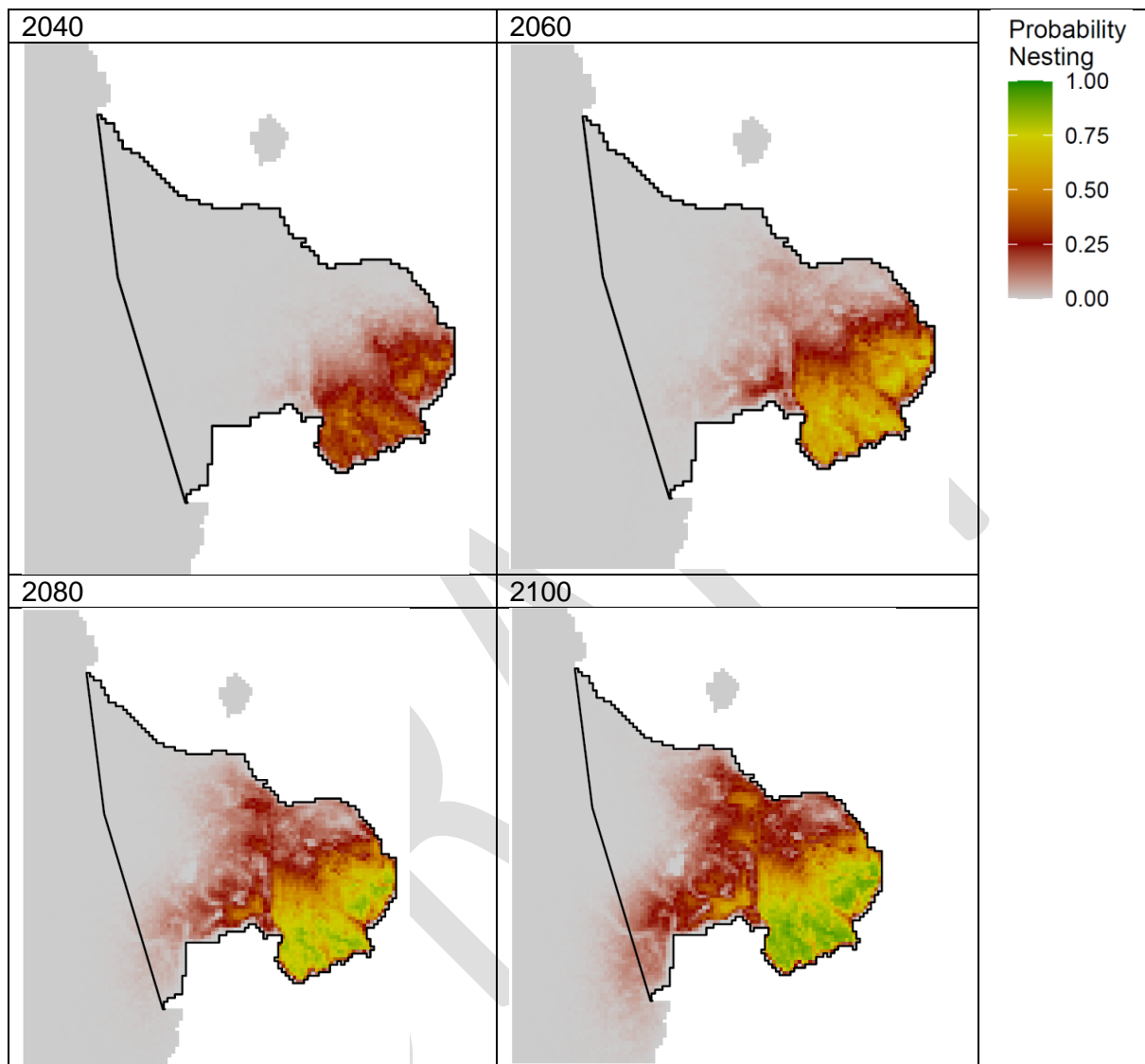
**Coastal plateau habitat** – Areas of relatively flat ground used as nesting sites by Ascension frigatebird and masked booby.

### Distribution of priority species and habitats

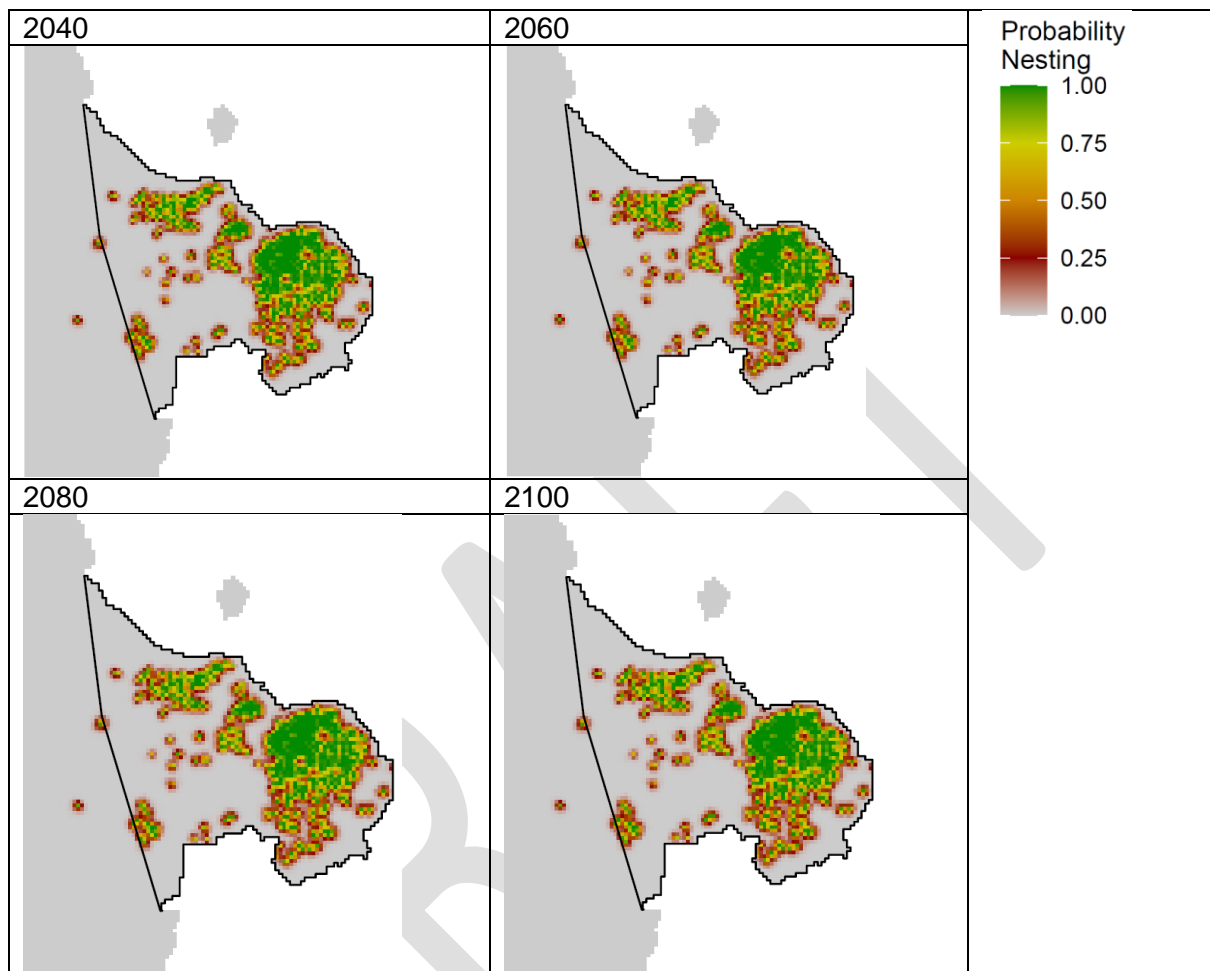
The distribution of frigatebird and masked booby nests has been recorded by walkover and drone surveys. The likely expansion in range of nesting frigatebirds and masked boobies was modelled based on habitat suitability, population growth and climate change projections (the number of nest sites is heavily influenced by temperature and rainfall). Masked boobies are currently nesting on the summit of White Horse Hill and to the West of the Marty-Wade Track outside of the current Letterbox Nature Reserve. The modelling predicts that masked boobies are unlikely to extend their range significantly beyond this over coming decades.

All known frigatebird nests are currently within the existing Nature Reserve boundary, but the models predict that the distribution of nesting frigatebirds will continue to expand and extend beyond the reserve boundary over the next 75 years. The maps below show the model predictions under the most likely climate change scenario assuming some reduction in global carbon emissions.

The probability of a frigatebird nest occurring at a location modelled using climate change projections (RCP45).



The probability of a masked booby nest occurring at a location modelled using climate change projections (RCP45).



## Proposed Nature Reserve Boundary



The extension area was derived from the maps above and was designed using the following criteria:

- Coverage of the most important areas of current and predicted future frigatebird and masked booby nesting activity.
- Creation of a coherent, continuous area with as simple an outline as possible.
- Ease of identification of the boundary by people accessing the site – the new boundary will begin at the gate on the Marty-Wade Track.

### Potential Conflict with Existing Land Use

All of the land within the proposed extension is managed by AIG on behalf of the Crown. There are no existing Land Occupancy Permits relating to the land within the proposed new boundary.

Three Letterbox walks area accessed via the Letterbox track. The new Nature Reserve boundary would be closer to the beginning of the track, but would have no additional impact on people's ability to enjoy the walks.

### Proposed National Protected Area Regulations Applying to the Extension

No new regulations are proposed because the existing general prohibitions in Section 3 and the Seabird Nature Reserve regulations in Section 6 of the National Protected Areas Regulations sufficiently restrict potentially damaging activities within the extended Nature Reserve.

All or any of the following are prohibited within the Nature Reserve if done without the prior permission of the Administrator or Reserve Warden:

- any development;
- the improving or altering of any existing structure;
- the removal of sand, soil or rock;
- the intentional or reckless disturbance to, or damage or injury to, any protected species;
- the dumping of refuse, chemicals, abandoned vehicles, scrap metal, mining spoils, toxic or other wastes, bilges, oil and other petroleum products, pesticides and other items harmful to animals or plants, or unsightly items;
- the driving or riding of motor vehicles other than on other than on a designated road or track or in a signed parking zone;
- parking a vehicle, except in a signed parking zone;
- the making of fires without a permit other than in a portable stove or grill, or in designated fire pits;
- playing any musical instrument, radio, sound system, television or other item which produces or reproduces music, to the annoyance of other persons;
- the use or possession by any person, other than a Warden acting in the course of his or her duties, of any type of firearm, air gun, cross bow, bow and arrow or slingshot;
- allowing any dogs or cats within the reserve.

### **Proposed objectives and management actions of the Nature Reserve**

The draft Letterbox Nature Reserve Management Plan incorporates objectives and actions for the extended reserve.

## Appendix 6 – Hummock Point Nature Reserve

### Rationale for designating the Nature Reserve

The proposed Hummock Point Nature Reserve incorporates one of the most important populations of the endemic Ascension spurge on Ascension and a stronghold for the near-endemic Ascension Island sedge. Active management of the site through the exclusion of grazing animals and prevention of encroachment by non-native plants would benefit both species. The designation would make it easier for AIGCFD to attract external funding and prioritise its own resources to instigate this management.

The coastline in the northwest corner of the proposed Hummock Point Nature Reserve contains sandy beach and rocky shore habitat that is suitable for nesting green turtle, spawning land crabs and scaly crickets. Whilst these species are found at greater abundance in other areas of the island, the proposed Nature Reserve boundary has been drawn to include the habitats of these priority species and reserve management will consider their needs in addition to those of the plants.

### Priority species and habitats included in the reserve

#### ▪ Species

**Ascension spurge** (*Euphorbia organoides*) - Endemic. IUCN Red list: Critically Endangered.

**Ascension Island sedge** (*Cyperus appendiculatus*) – Near endemic species, endemic variety. IUCN Red list: Not listed.

**Green turtle** (*Chelonia mydas*) – Listed in the Wildlife Protection Ordinance, 2013. Endemic. IUCN Red List: Endangered.

**Land crab** (*Johngarthia lagostoma*)– Listed in the Wildlife Protection Ordinance, 2013. IUCN Red List: Not Evaluated.

**Scaly cricket** (*Discophallus ascension*, *D. myrtleae*, *D. pallidus*) – Endemic. IUCN Red List - currently unlisted but would be classed as Critically Endangered under criterion B1ab(iii) + B2ab(iii)

#### ▪ Habitats

**Trachyte cliffs, scree and superficial volcanic deposits** – loose rocky substrate that provides suitable growing habitat for Ascension spurge and Ascension Island sedge on the Hummock Point plateau.

**Lava fields** – lava fields approximately 0.5 million years old extending inland from the coast to the 500m altitude contour that provide habitat for the Ascension spurge and Ascension Island sedge and potential habitat for scaly crickets.

**Sandy Beach** – fine beach sand used by nesting turtles and spawning land crabs.



**Rocky beach** – pebble beaches found in small coves along the coast that are a stronghold for scaly cricket populations.

### **Distribution of priority species**

The positions of Ascension spurge plants recorded between 2016 and 2023 are shown as blue dots on the map below. The distribution of the Ascension Island sedge has not been mapped in recent years, but observations by the AIGCFD plant team suggest there is high overlap between its distribution and that of the Ascension spurge, and that Hummock point is an important refuge site for the sedge.

The sandy beach and rocky shore area outlined in red in the northwest of the proposed Nature Reserve is the only area of suitable habitat for nesting turtles and spawning land crabs. The most significant area of good habitat for scaly crickets is also found within the area outlined in red.

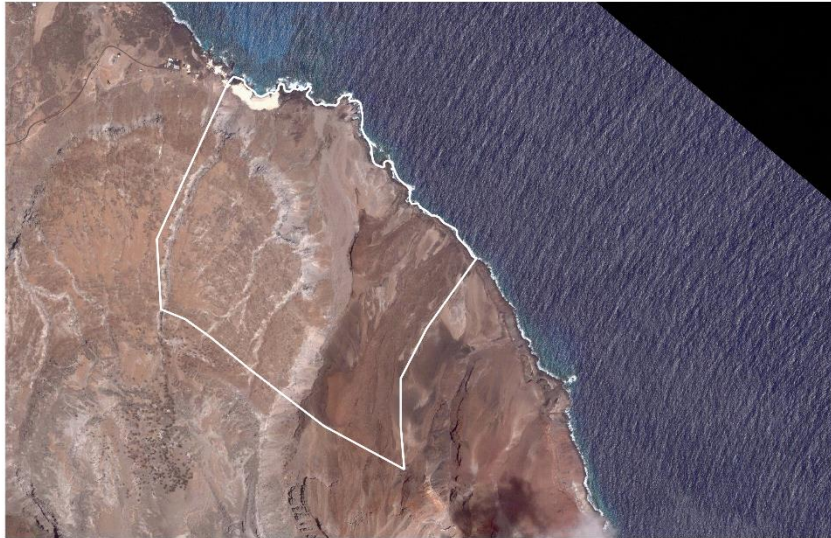
The orange lines indicate the high ground to the west and east that mark the hydrological boundaries of the site.



### **Proposed Nature Reserve Boundary**

The proposed boundary of the new Hummock Point Nature Reserve is shown on the map below.





It was derived from the maps above and designed using the following criteria:

- Coverage the recent distribution of Ascension spurge and Ascension Island sedge plants and the inferred extent of the viable seed bank.
- Coverage of areas with the potential for the expansion of Ascension spurge and Ascension Island sedge.
- Creation of a coherent, continuous area with as simple an outline as possible.
- Inclusion of areas that affect the flow of water into the habitat of Ascension spurge and Ascension Island sedge.
- Areas can be safely reached to allow practical management.

### **Potential Conflict with Existing Land Use**

All of the land within the proposed Hummock Point Nature Reserve is managed by AIG on behalf of the Crown. There are no existing Land Occupancy Permits relating to the land within the proposed boundary.

The Letterbox walk to Boatswain Bird View passes through the proposed Nature Reserve. None of the proposed prohibitions would affect people's ability to enjoy this walk. Many of the Letterbox Walks go through existing Nature Reserves with no impact on walkers. Designation as a Nature Reserve would ensure the natural features of the area, which make it popular with walkers, are maintained.

The coastline east of North East Bay is used by rock fishers. Some of this area is already within the existing North East Bay Nature Reserve and none of the prohibitions applying to the Nature Reserve affect people's ability to engage in this activity. The creation of a new Nature Reserve further east along the coast will similarly not conflict with people's ability to fish in the area.

## **Proposed National Protected Area Regulations Applying to the new Nature Reserve**

The general prohibitions in Section 3 of the National Protected Areas Regulations, 2014, will apply to the new Nature Reserve. A specific additional prohibition on damage to plants within the Nature Reserve will be applied to the Hummock Point Nature Reserve to protect the Ascension spurge.

### **General prohibitions:**

All or any of the following are prohibited within the Nature Reserves if done without the prior permission of the Administrator or Reserve Warden:

- a) any development;
- b) the improving or altering of any existing structure;
- c) the removal of sand, soil or rock;
- d) the intentional or reckless disturbance to, or damage or injury to, any protected species;
- e) the dumping of refuse, chemicals, abandoned vehicles, scrap metal, mining spoils, toxic or other wastes, bilges, oil and other petroleum products, pesticides and other items harmful to animals or plants, or unsightly items;
- f) the driving or riding of motor vehicles other than on other than on a designated road or track or in a signed parking zone;
- g) parking a vehicle, except in a signed parking zone;
- h) the making of fires without a permit other than in a portable stove or grill, or in designated fire pits;
- i) playing any musical instrument, radio, sound system, television or other item which produces or reproduces music, to the annoyance of other persons;
- j) the use or possession by any person, other than a Warden acting in the course of his or her duties, of any type of firearm, air gun, cross bow, bow and arrow or slingshot;
- k) the occupation of beach huts after 9:00p.m. during turtle season;
- l) the lighting of beach huts after 9:00p.m. during turtle season;
- m) allowing of unaccompanied dogs;
- n) allowing dogs off their leash between sunset and sunrise;
- o) the driving or parking of any motor vehicle on the beach;
- p) water skiing and the operating of jet skis during turtle season;
- q) pitching or erecting any tent on the beach during turtle season;
- r) the installation of artificial lighting fixtures that are directly visible from the beach, or which indirectly illuminate the beach.

### **Additional prohibition applying to Hummock Point Nature Reserve**

The following are prohibited within the Nature Reserve without the prior permission of the Administrator or Reserve Warden:

- s) Damage to plants by any means including through cutting, trampling, herbicide application, uprooting or the removal of any plant from the Nature Reserve.

It is not intended that any roads, tracks, parking areas or fire pits will be designated within the Hummock Point Nature Reserve.

## Proposed Objectives of the Nature Reserve

- A viable population of Ascension spurge and Ascension Island sedge exists within the Nature Reserve. This will be judged by the constant presence of some mature plants and trends in the number and distribution of seedlings appearing following heavy rain.
- No non-native trees or shrubs are present within the Nature Reserve.
- Grazing does not cause significant damage to Ascension spurge or Ascension Island sedge plants within the Nature Reserve.
- No development that would damage Ascension spurge plants, their seedbank or their habitats will be permitted within the Nature Reserve.
- There is a high level of awareness amongst the Ascension community and visitors to the island about the Ascension spurge and Ascension Island sedge.

## Proposed Management Actions

- Remove all non-native trees and shrubs from the Nature Reserve, and potentially a buffer zone, using mechanical and chemical control methods.
- Fence core areas of Ascension spurge and Ascension Island sedge (both plants and inferred seed bank) within the Nature Reserve to prevent access by sheep and rabbits.
- Deploy poison bait boxes around the core areas of Ascension spurge and Ascension Island sedge to reduce the grazing pressure from rodents.
- Consider the use of rain collection and water storage systems to maintain Ascension spurge populations through periods of drought.
- Carry out Environmental Impact Assessments for all proposed developments within the Nature Reserve.
- Create public engagement material, including signage at access points into the reserve, educating members of the public about the Ascension spurge and Ascension Island sedge.