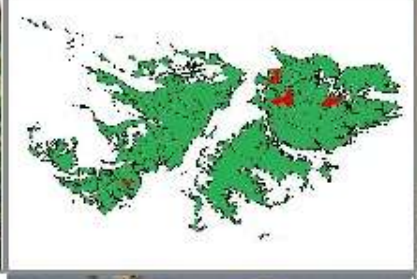
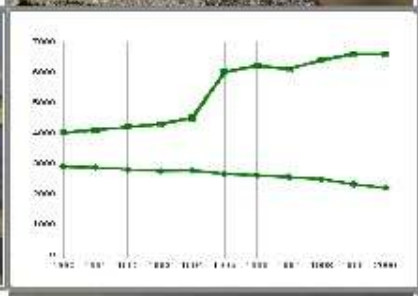



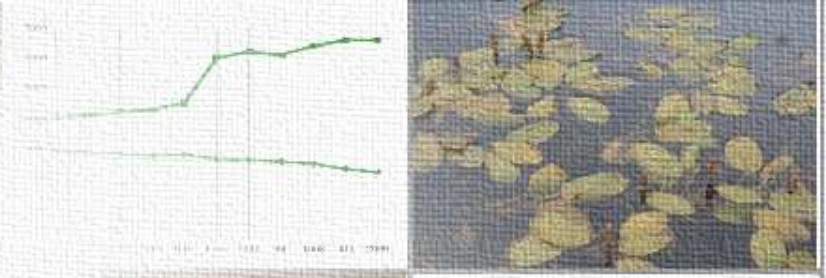

Biodiversity Action Planning in the Falkland Islands

Andrew Stanworth Freya Gill

FALKLANDS CONSERVATION

DARWIN INITIATIVE

Kew
ROYAL BOTANIC GARDENS



Scope

- Biodiversity: the variety of life on Earth
- Action: a thing done; an act - the basic unit of Action Planning
- Planning: the process of thinking about and organizing the activities required to achieve a desired goal

Terminology

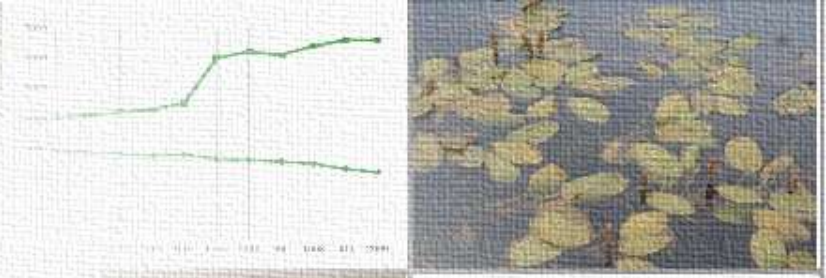
Management System

Framework: a basic structure underlying a system. Highest level, usually legislation or policy – often defines Strategies.

Strategy: higher tier organisational unit for Plans or broad-ranging Actions.

Plan: organisational unit for Actions

Action: basic unit



Project Aims

- Review of FI biodiversity action
- Establish an effective means of managing biodiversity action.
- Provide a method by which to prioritise Actions
- Design an electronic means of hosting action
- Share findings with other UKOTs
- Address outstanding Action Plans

Biodiversity Actions

Most commonly relate to:

- ‘Threatened’ species and habitats
- Protection and restoration of biological systems

Generally:

- Outline tasks to achieve conservation and restoration targets
- Establish budgets, timelines and institutional partnerships for implementation

Biodiversity Actions

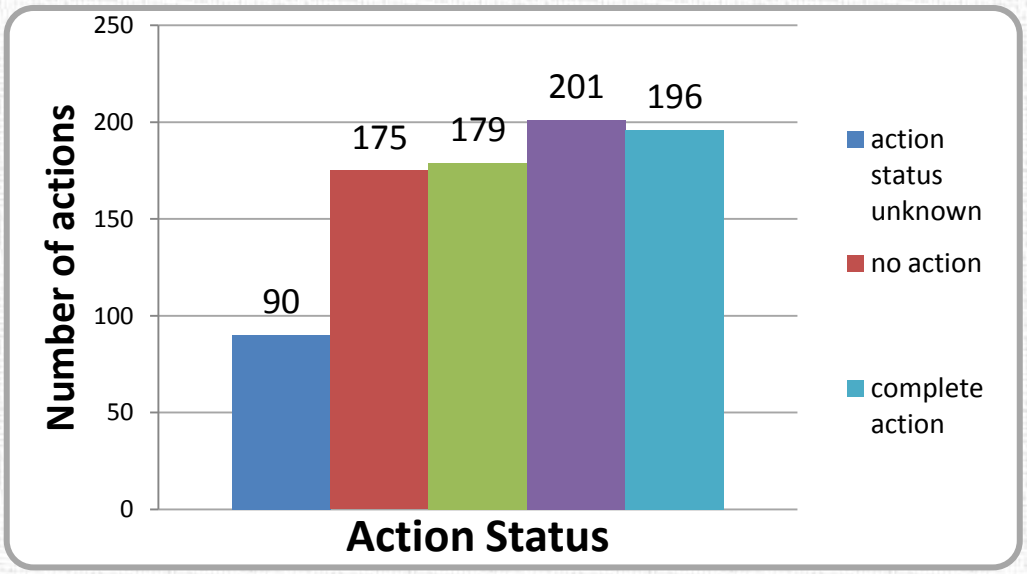
- Influence grants and funding.
- Channel resource
- Used as performance indicators
- Drive policy
- Address policy/conventional obligations
- Increase awareness

Workshop Format

- Actions
- Management (and hosting)
- Prioritisation

Actions: a review

- Collated 1670 actions from 126 documents
- Described Plan characteristics
- Examined current action status



Actions: Responses

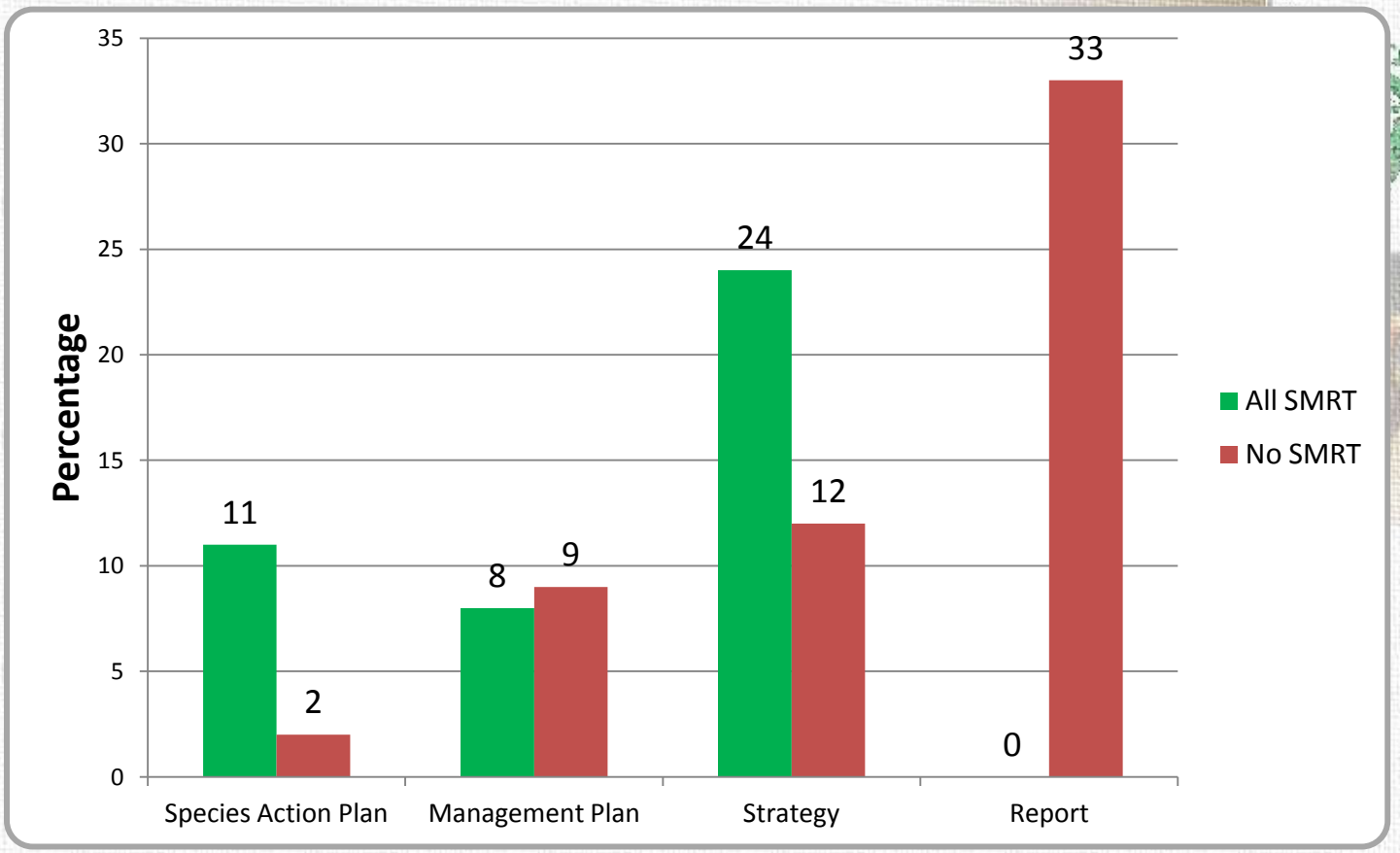
Action	Nature of work conducted
Annual survey to assess fence condition and abundance/location of orchids.	This was done in 2006/07.
Where appropriate, provide observer coverage on Falkland Island registered longliners operating outside Falkland Islands waters	2002-2007, 35% of all fishing days by FI longliners covered by observers. 2007-2009 only one trip out of 3 taken.
Identify priority areas for protection (e.g. boulder beaches, etc) and undertake restoration activities such as fencing, tussac grass planting.	Fencing to help habitat restoration on Carcass Island (2011); tussac grass planting has occurred

Suggestions
SMART actions
More definition
No annual actions?
Responsible bodies
Standardised review period for group of actions?

Actions: SMARTness

- **S**pecific
- **M**easurable
- **A**chievable
- **R**elevant
- **T**ime-bound

Actions: SMRT Review



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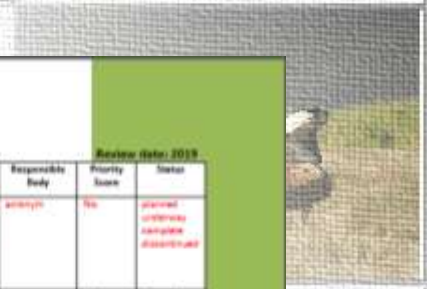
Actions: solutions

- Clearly defined submission process
- Decision group/ co-ordinator

(81 Actions/year)

- Submission template
- Guidance
- Standardised Plan format (multiple species)

Actions: solutions



Falkland Island Species Action Plan

Fir Clubmoss (Huperzia Fuegiana, Lycopodiaecea)

ACTION PLAN COORDINATOR
Falklands Conservation
(email)
LAST UPDATED
May 2014

DESCRIPTION

Fir Clubmoss has ascending stems 2-5 cm in height, which are covered in many rows of small, tightly overlapping golden-green leaves. Fir Clubmoss is found in exposed situations without shrub overgrowth, such as rocky ledges, peaty hummocks around boulders and sites where the growth of dwarf shrubs and other vegetation is low and thinned by the presence of shallow underlying rocks.

CURRENT DISTRIBUTION

Fir Clubmoss is limited to Argentina, Tierra del Fuego and the Falkland Islands. In the Falklands it may be under-recorded; however it was not found during the DEFRA Darwin Initiative programme (1999-2001) and only encountered twice in 2007-2009. It may therefore be genuinely rare. There are 3 historical records, one (Whalebone Cove, East Falkland) of which could not be relocated in 2007-2009, one which has been confirmed (Cerritos Rocks, Mt Usborne) and one which needs following up (Mount Vernet). Fir Clubmoss is likely extinct from the Whalebone Cove site from which it was recorded in 1964 as this area is so well surveyed.

CURRENT FACTORS CAUSING LOSS OR DECLINE

Threat (IUCN categories)	Timing	Severity	Scope	Impact Score
2.3.2. Agriculture & aquaculture -> Livestock farming & ranching -> Small-holder grazing, ranching or farming	Ongoing	Unknown	Unknown	Unknown
7.3.3. Natural system modifications -> Fire & fire suppression -> Trend Unknown/ Unrecorded	Future	Unknown	Unknown	Unknown

PREVIOUS ACTION

2012: An identification guide to this species was produced and posted on Falklands Conservation's website. A copy was sent to all landowners involved in the island-wide seabird census of 2010/2012.
2012: the Hornby Mountains and Keppel Island - two locations where Fir Clubmoss has been recently recorded- have been identified as Important Plant Areas (Upson, 2012).
2009-2011: Four of the six records lacking precise geographical locations information were followed up by Falklands Conservation staff. Only one historical record has been confirmed so far.

IUCN Red List: NA

Falkland Islands Red List: CR, EN, VU, NT, LC, DD

International agreements
Not listed

Falkland Islands Ordinance
Listed in Wildlife and Nature Ordinance

Level of endemism
Native

Population estimate
Global
Unknown

Falkland Islands
<1000 individuals (Upson, in prep)

Photo credit

Falkland Island Species Action Plan

PROPOSED ACTIONS FOR FIR CLUBMOSS — Review date: 2019

Ref.	Action	Outcome		Approx. time to event		Responsible Body	Priority Score	Status
[illegible]	Textual description	No.	area(s) hectare(s) site(s) individual(s) produce(s) year(s)	No.	[illegible] Year(s) Month(s) Week(s) Day(s)	activity/ies	No.	planned underway complete discontinued
FC01	Key areas for Fir Clubmoss should be identified and either protected or managed with this species in mind.						XX	Planned
FC02	Hornby Mountains sites with >10 mature individuals should be protected from grazing through fencing the entire IPA.	1	Area	2	Months	FC, FIG	XX	Planned
FC03	Ensure that landowners and managers remain aware of the presence and importance of preserving this species through annual phone calls for 5 years.	5	Instances	5	Days	FC	XX	Planned
FC04	Revisit areas where the species has been reported, but frequency is unknown, and try to assess the status of these subpopulations.	6	Sites	2	Weeks	FC, FIG	XX	Planned
FC05	Consider this species when prioritising areas for future botanical survey.						XX	Planned
FC06	Determine the species' precise ecological requirements						XX	Planned
FC07	Investigate the impact of grazing on Fir Clubmoss.						XX	Planned
FC08	Draw attention to the ID guide freely available for download from Falkland Conservation's website through Penguin News article.	1	Instance	1	Day	FC	XX	Planned

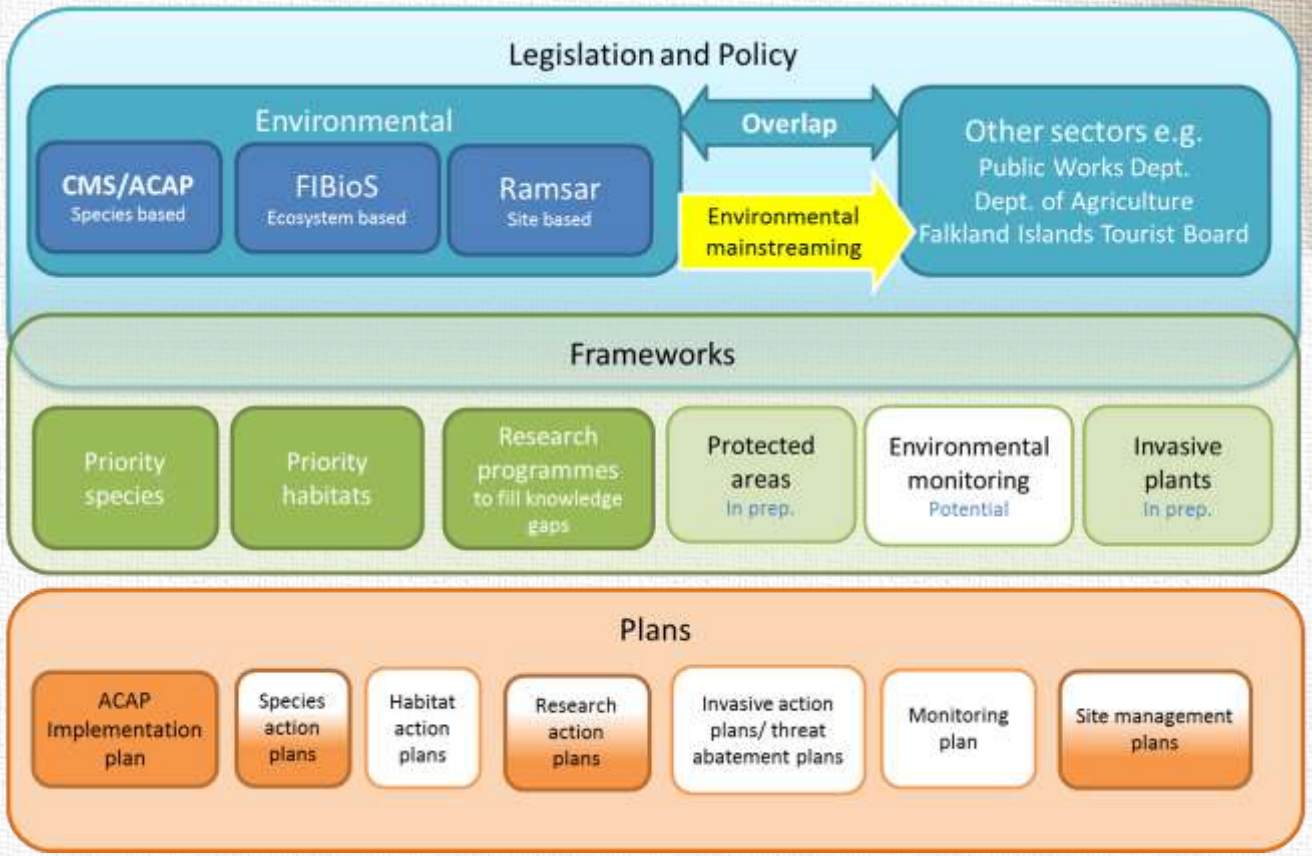
Links with other plans
It could be targeted along with the other threatened species found within the Hornby Mountains and Keppel Island IPAs (Upson, 2012).

Supporting documents
Upson, R. 2012. Table of current known locations of the Fir Clubmoss.
Broughton, D.A. 2002. An action plan for the threatened vascular flora of the Falkland Islands. Falklands Conservation, Stanley.
Broughton, D.A. and McAdam, J.H. 2002. Red Data List for the Falkland Islands vascular flora. Oryx, 36(3): 279-287.
Broughton, D.A. and McAdam, J.H. 2002. The vascular flora of the Falkland Islands: An annotated checklist and atlas. A report to Falkland Conservation. University of Belfast, Belfast.

FALKLANDS CONSERVATION

Biodiversity Action Planning

Management: Current



Management: Current

Advantages

- Captures scope of action planning at multiple scales
- Adaptable

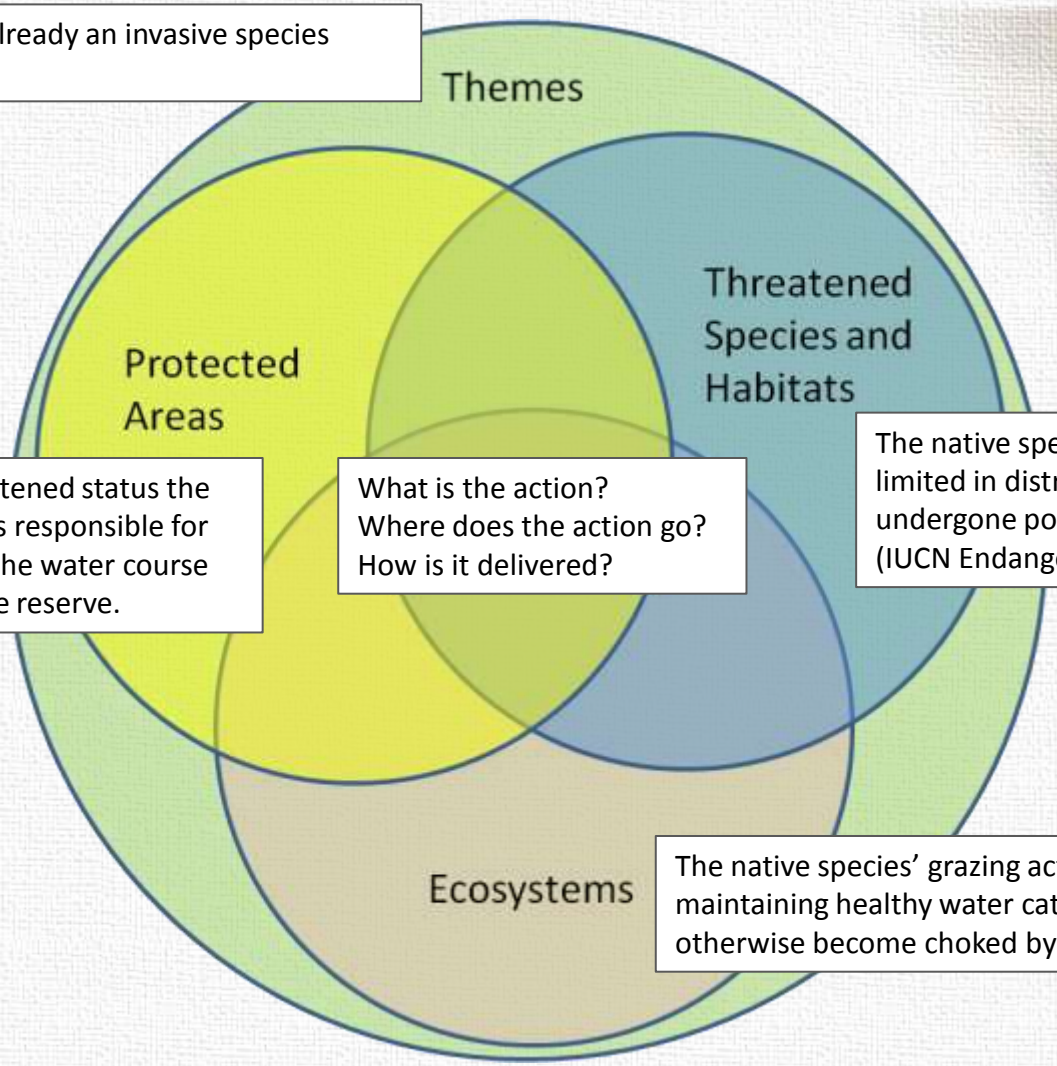
Disadvantages

- Difficult to review – document-based approach
- No guidance, templates or restrictions
- Inconsistent placement of actions
- Repetition
- No standardised prioritisation system
- Stakeholders are allocated autonomously by specific plans

Management: allocation

There is already an invasive species strategy.

A landowner informs government that a species of semi-aquatic rodent - introduced to control an invasive plant species ,is out-competing a native species occupying a similar niche .



Due to its threatened status the native species is responsible for designation of the water course as a local nature reserve.

What is the action?
Where does the action go?
How is it delivered?

The native species is endemic, limited in distribution and has undergone population declines (IUCN Endangered).

The native species' grazing activities are essential to maintaining healthy water catchments that would otherwise become choked by emergent vegetation.

FALKLANDS CONSERVATION

Management: How many Actions?

Approximately…

- half to two thirds of actions <£1000
- about one third cost thousands to low 10s of thousands
- approximately one in ten cost more

How many is realistic to deliver?

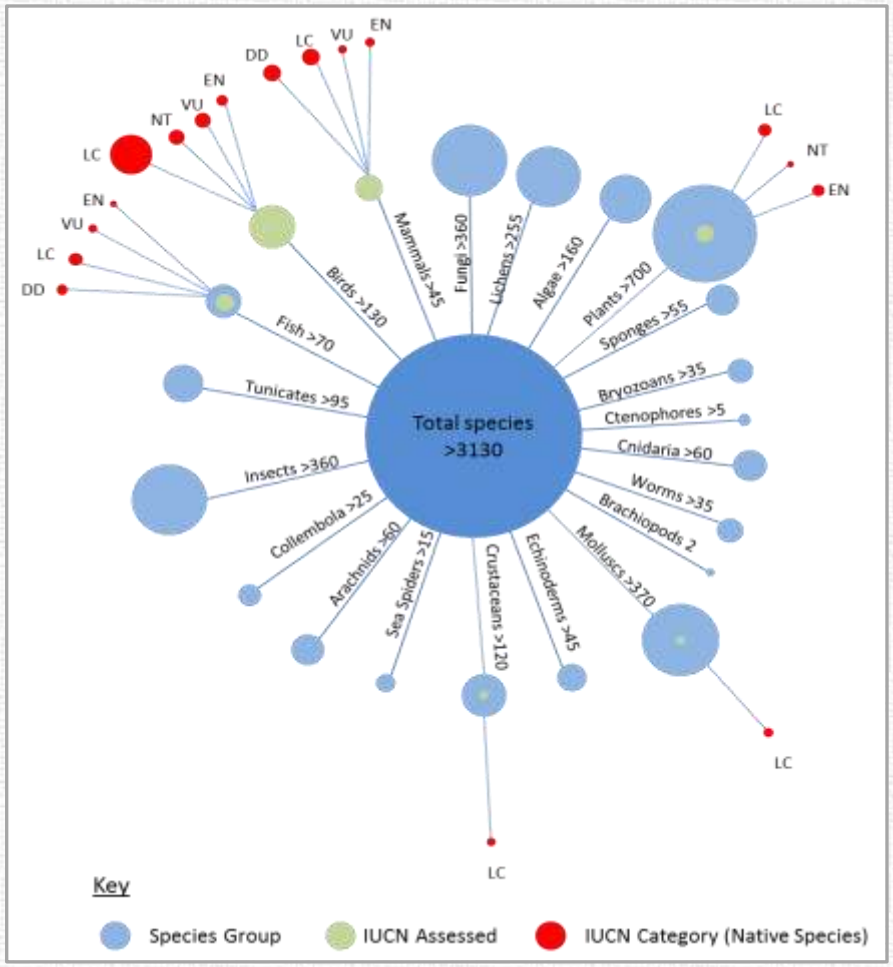
One a day, 1 per week, 1 per month?

Management: Plan qualifying criteria

One or more of:

- Has an internationally recognised measure of rarity (e.g. presence on IUCN red list as Critically Endangered, Endangered, or Vulnerable; Annex I or Annex II under Bonn Convention; Appendix I under CITES)
- Has experienced known declines in geographic range or abundance (50 % in the last 25 years; or more than 75 % historically)
- (Species) Is linked with a habitat that has declined substantially recently or historically
- Is extremely rare, localised, or charismatic/ endemic and under an identifiable threat
- Is extinct in the wild (Otley *et al* 2008)

Management: future Plans



Churchyard et al (in prep), RSPB

Birds: 130 species = 10 Plans

All: >3130 species = 240 Plans

Biodiversity Action Planning

Management: future Actions

	Finalised SAP	Finalised MP	Finalised Strategy Document	Finalised Report
Number of documents	6	5	5	79
Total number of actions (*n* =)	187	76	172	482
Range	11-59	7-36	7-87	1-70
Average number of actions per document	31.2 ± 14.7	15.2 ± 14.3	34.4 ± 37.8	6.1 ± 9.4

7740 Actions for Species Actions Plans…
1 per day for 21 years

Management: Action Control

Increase sources
Add reports 26 action/yr for past 5yrs
Reduce Sources
Would prevent feedback/review system

Criteria
Birds (4 plans): keep EN + CR only (-4 species) add NT (+5 species)
Plants (39 plans): keep EN + CR only (-11 species), CR only (-27 species) add NT (+3 species)
Fixed Limit
X number of most important SAP and HAPS or invasive APs etc.

Unlikely to be more frameworks (poss. CBD)
Not all strategies identified started
Limiting would reduce flexibility and theming (adding strategies could reduce Actions by 20%)

240 plans – limit of 5 actions – 1200 rather than predicted 7800
73 current plans - limit of 5 actions - 365 actions

	Sources	Action	Strategies	Plans	Plans	Action out
Issues	↑ Sources ↑ Action		↑ Strategies	↑ Plans Few limits on plans (qualifying criteria for SAP and HAP)	↑ Plans ↑ Actions	
Options	Limit number of sources		Strategies Utilise theming to reduce repetition	Limit number of Plans per Strategy Create/ adjust qualifying criteria	Limit number of Actions per Plan	

Biodiversity Action Planning

Management: Responses

- Just under half thought it best to keep all actions.
- Some support though for within document prioritisation and theming.
- Over half supported reducing action volume by:
    1. Number of actions in Plans
    2. Qualifying criteria
    3. Theming

Actions: solutions

‘One of the common dangers when developing an action plan is that the potential implementing agencies may seek to use the action plan as a means of seeking funding for pre-existing proposals for which they have not been able to find funding in the past. It is critical that the action plan not become an extensive wish list of old and new proposals’

BPSP: A Guide for Countries Preparing National Biodiversity Strategies and Action Plans (R. Hagan)

Management Solutions

- Utilise most suited framework
- Implement Action Control (submission and management systems)
- Review

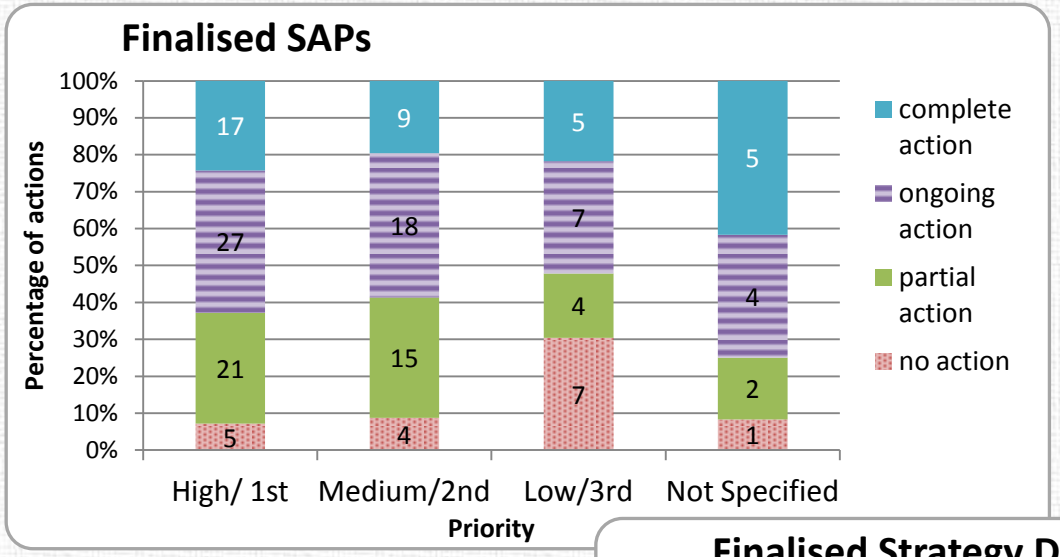
Prioritising Action

‘Most conservation planners would be comfortable saying that they are prioritizing species, habitats, or locations. We argue that only actions can be legitimately prioritized.’

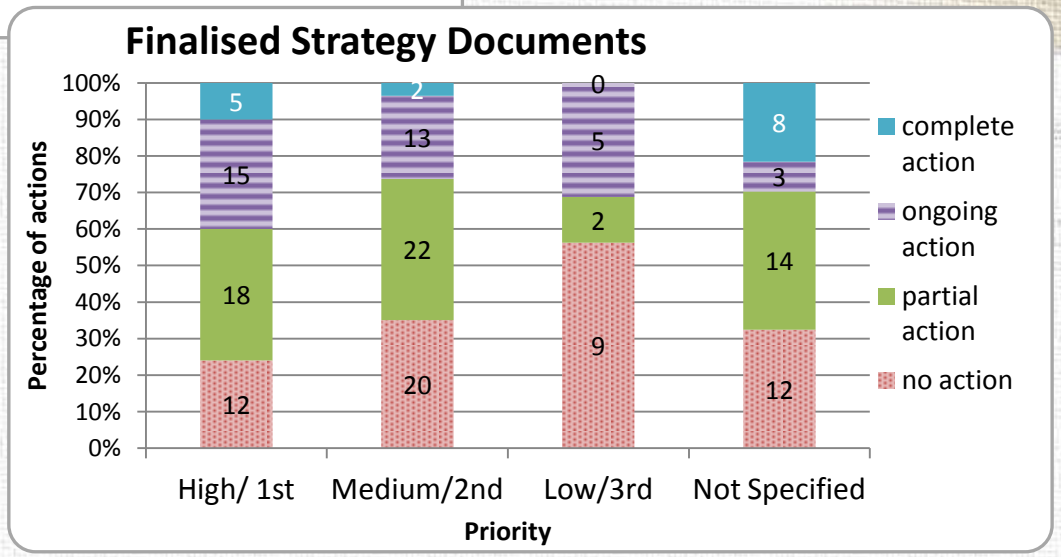
‘prioritization is about resource-allocation decisions. Places, species, and habitats do not use the resources of conservation organizations and agencies— actions use resources.’

Game et al 2013. Six common mistakes in Conservation Priority Setting.

Prioritising Action



Review findings



Prioritising Action

Short name	IUCN	Description	Timeframe	Total Cost
Eradicate rats		Bait First Passage (750ha) to eradicate rats. (Additional actions will have to follow to ensure success.)	1 month	£28, 000
Cobbs wren stamp	VU	Cobbs wren featured in stamp issue, to meet 2009 centenary.	1 year	£500
Marsh Sedge	DD	Survey 3 similar sites / habitats / areas in NW Falklands.	3 years	£7,600
Minefield education		Educate visitors on minefields and suspect areas at Gypsy Cove, by designing, printing and installing signs.	6 months	£2,500
Monitor BBA annually	NT	Monitor BBA population size and demographic parameters at Steeple Jason Island (including banding adults and chicks) every year for the next 5 years.	5 years	£40, 000
Field centre		Set up a field / research centre on Motley Island. This would include accommodation, however space would be available to make or store basic survey equipment and some laboratory space could be provided, with work benches for examination of botanical, geological or zoological specimens.	10 years	£260,000

FALKLANDS CONSERVATION

Prioritisation System

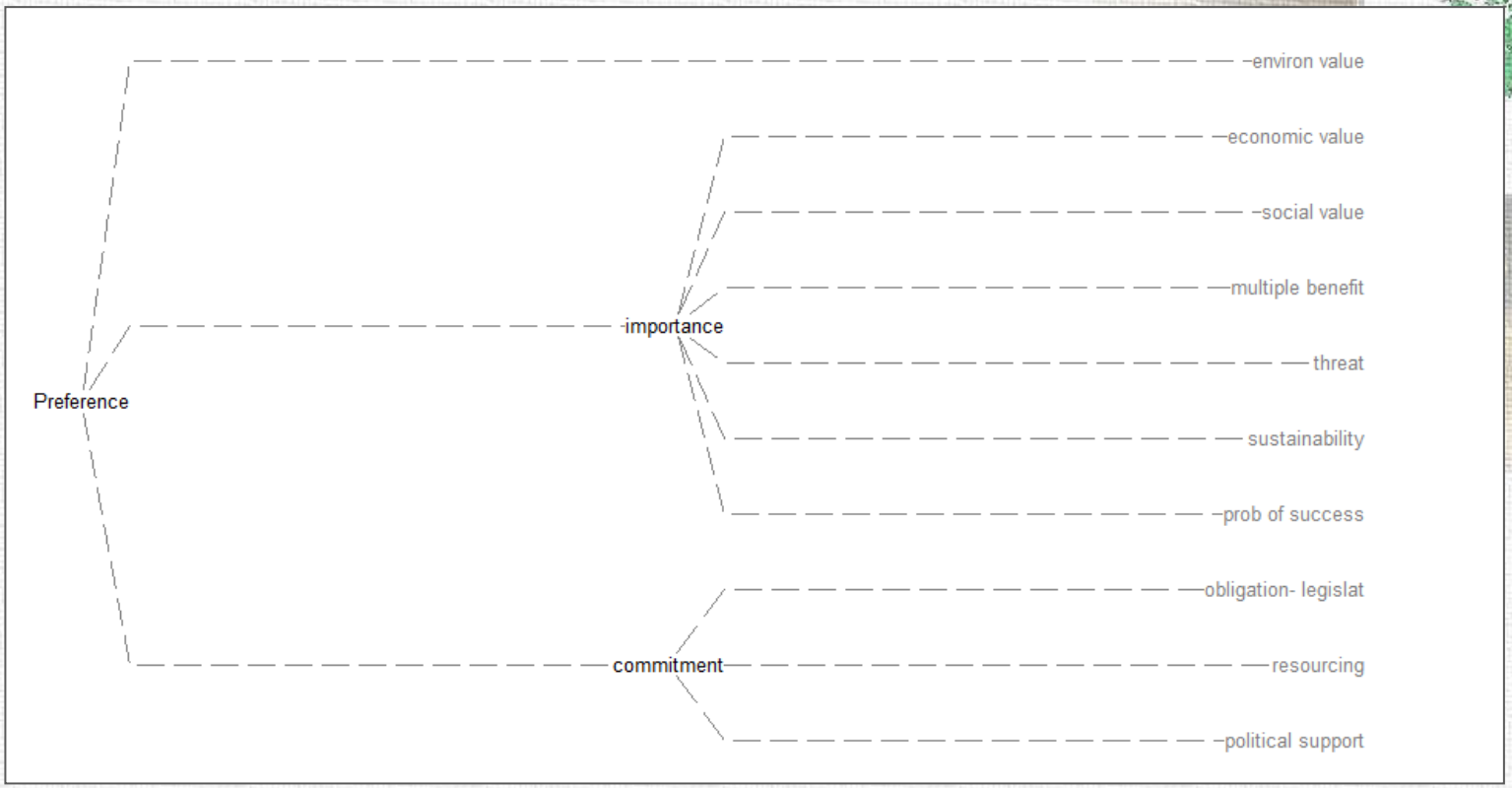
Based on MCDA

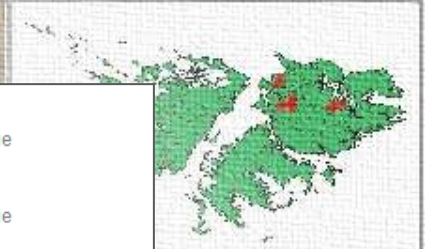
- Define Criteria and relationships
- Score
- Weight
- Conduct Sensitivity Analysis

Identify and organise criteria

- Identify criteria for assessing the consequences of each option.
- Organise the criteria by clustering them under high-level and lower-level objectives in a hierarchy.

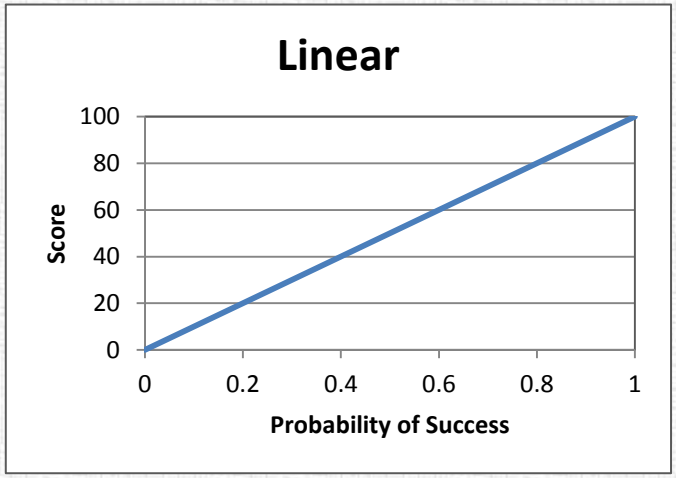
Identify and organise criteria





FALKLANDS CONSERVATION

Scoring – score types



Discrete categories	
Category	Score
0-10	10
11-20	30
21-30	70

Weighting

- Are some criteria more important than others? Agree which is the most important criteria.
- Assign weights for each of the criteria to reflect their relative importance.

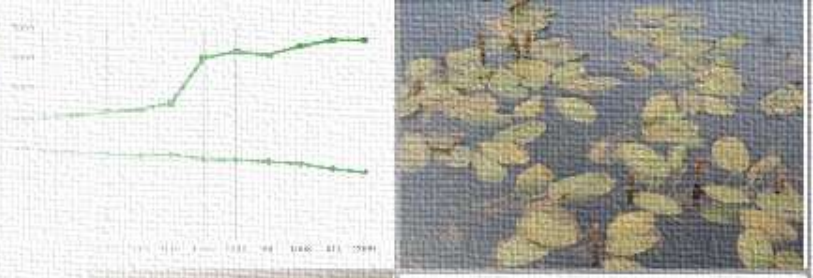
5. Weighting

Criteria	Relating to	Tier	Consensus?
Environmental value	Maintain or improve biodiversity and ecosystem services	1	Yes
Economic value	Contribute to FI economy	2	No (5 T1, 10 T2)
Social value	Contribute to FI social fabric	3	Yes
Multiple benefit	Have cross-sectoral benefits	2	No (5 T1, 8 T2, 1 T3)
Threat	National / international IUCN level; or a measure of the imminence, magnitude and distribution of the threat (urgency)	1	Yes
Probability of success	Considering people involved, scale, people / skills required, sustainability of action	1	Yes
Cost	Monetary cost of action	1	Yes
Resourcing	Magnitude of support and collaboration, evidence of partnerships and whether there will be in-kind resources available	1	No (6 T1, 4 T2)
Political support	Political and public support and will to enact – is the action likely to be popular?	2	Yes
Obligation	There is legal or policy obligation to enacting the action	1	No (10 T1, 5 T2)

Tiers: 1 = highest / most important.

Test and Sensitivity Analysis

- do other preferences or weights affect the overall ordering of the options?



Summary

- Actions (format, submission)
- Management (framework, system, responsibilities)
- Prioritisation (proactive)
- Workshop Document
- Feed into 2015 FI Biodiversity Strategy Review