

A Species Action Plan for **Cobb's Wren** 2009 - 2019



Falklands Conservation and
Falkland Islands Government



December 2008

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2009 – 2019

The compilation of this report is largely the work of Robin Woods (for Falklands Conservation) and Helen Otley (for the Falkland Islands Government). Apart from the comprehensive background information, the Plan itself is based on the results of a workshop held in Stanley in September 2008 facilitated by Helen Otley and Clare Miller of the EU-funded, South Atlantic Invasive Species Project, which is managed by the Royal Society for the Protection of Birds.

Survey records were collated by Robin Woods based on surveys and sightings made by a variety of people, but principally by Mike Morrison working with Robin Woods, and by Sally Poncet.

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Environmental Planning Department
Falkland Islands Government
Stanley, Falkland Islands. FIQQ 1ZZ
Telephone: (500) 28480
Email: fwallace-nannig.planning@taxation.gov.fk

Falklands Conservation
41 Ross Road
Stanley, Falkland Islands. FIQQ 1ZZ.
Telephone: (500) 22247
Email: info@conservation.org.fk

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Acronyms

CWSG	Cobb's Wren Steering Group
EC	FIG Environmental Committee
EO	FIG Environmental Officer
EPD	FIG Environmental Planning Department
FC	Falklands Conservation
FIG	Falkland Islands Government
FIDC	Falkland Islands Development Corporation
FIGO	Falkland Islands Government Office (London)
FITB	Falkland Islands Tourist Board
FLH	Falkland Land Holdings
NGO	Non-Governmental Organisation
NICT	New Island Conservation Trust
NNR	National Nature Reserve
RSPB	Royal Society for the Protection of Birds
SAFER	Sub-Antarctic Foundation for Ecosystem Research
SAIS	South Atlantic Invasive Species Programme
SAPC	Species Action Plan Co-ordinator

1: Executive Summary

Cobb's wren (*Troglodytes cobbii*) is one of two endemic birds on the Falkland Islands. It is a small passerine bird found on offshore islands that are free of introduced rodents, cats and foxes, where it forages on boulder beaches. It usually builds a nest in the tussac grass habitat that fringes the favoured coastlines. Little is known about the breeding biology and distribution of the species because there have been few surveys and studies specifically for Cobb's wren.

Presence/absence data for Cobb's wren and introduced mammals have been collected from a variety of sources, including landowners and local and visiting naturalists and scientists, for approximately 150 islands. Cobb's wren is confirmed as present and probably breeding on 57 of these islands, with an estimated population of 6,000 pairs. Although this appears to be substantial and may sound secure, further accidental introductions of mammalian predators could eliminate any of these island populations. It is therefore thought that the current IUCN conservation status listing of *Vulnerable* for Cobb's wren should remain.

The two key factors that threaten the ability of this species to survive long-term are the introduction of invasive mammals such as rodents and cats and a shortage of detailed information about its biology and habitat requirements to guide appropriate management. A limited amount of work which contributes to the management of Cobb's wren is currently under way in the Falkland Islands. However, a focused and prioritised plan with specific actions is needed to ensure that the current island populations have maximum chances of survival, of increasing their existing range and reducing their vulnerability. In September 2008, a workshop was held in the Falkland Islands with 16 stakeholders to formulate a Species Action Plan and agree this long term vision for Cobb's wren and the action tasks that are needed.

Vision

To secure and increase the population and distribution of Cobb's wren, so they are visible and accessible enough for future generations to see and enjoy

10 year Aim

To secure and increase the current population and distribution of Cobb's wren

There are six objectives to be achieved within a ten year period: (A) research, (B) monitoring and surveys, (C) land management, (D) biosecurity, (E) education and awareness and (F) plan management and evaluation. Each objective has between three and nine action tasks, which are assigned a priority rating, a time frame and defined responsibility for implementation. The most important priority is investigation of more unsurveyed offshore islands.

A number of stakeholders is identified to implement individual tasks and to manage the overall Species Action Plan. The stakeholders include landowners, Falklands Conservation, other non-governmental organisations, independent researchers and the FIG Environmental Planning Department.

The Action Plan is intended to be an evolving document with flexible timings and responsibilities. The preparation of the Action Plan is only the beginning. It is down to everyone on the Falkland Islands to ensure that these objectives are delivered on the ground.

2: Background

A. Introduction

Two species of wren breed in the Falkland Islands: Cobb's wren and the smaller grass wren *Cistothorus platensis* which has a heavily streaked black and buff back, a small but noticeable buff eyestripe and a short brown bill.



Cobb's Wren

Alan Henry



Grass Wren

Alan Henry

Cobb's wren has been evaluated as '**Vulnerable**' by BirdLife International under IUCN conservation criterion D2. This implies that it is facing a risk of extinction in the wild in the medium-term future because it has a population occupying a restricted area (typically less than 100 km², but in this case about 270km²) or number of locations (more than ten but widely scattered) such that it is prone to the effects of human activities which could cause it to become Critically Endangered or even Extinct.

B. Identification

Cobb's wren is a bulky species about 13.5 cm in length with a noticeably long bill. It is uniformly dark chestnut-brown above with paler buff underparts, a grey-brown head, a slender down curved blackish bill and the wings and tail are barred dark and light brown.

Fledglings are darker and more ruddy. Colours of the adults' head and upperparts fade during the summer, making them readily distinguishable from juveniles. Male and female Cobb's wrens are indistinguishable in the field, but there is no evidence that females sing to defend territories.

C. History and taxonomy

The first observer to mention 'wrens' in the Falklands was the French priest and naturalist Dom Pernety, who was with the Bougainville expedition to establish a settlement on East Falkland. At Port Louis in 1764 he stated that "Here are great numbers of wrens like those in France" (Pernety 1771), which suggests Cobb's wren because it is very similar in appearance to the northern wren *T. troglodytes*, the only wren found in Europe. Unfortunately, Pernety made no further comments on any wren, though he did record what seem to be tussacbirds upon the shore. However, none of the naturalists visiting East Falkland in the 19th century, including Charles Darwin, reported a bird that is recognisable as Cobb's wren. Darwin commented on the grass wren and collected at least one specimen (Gould and Darwin 1841). It is possible that by the time the naturalists started arriving from 1820 onwards, the loud-voiced, very tame Cobb's wren which Pernety observed had disappeared from the mainland, following the introduction of rats and mice and the overgrazing of coastal tussac grass.

Over the past fifteen years, Robin Woods has visited or contacted museums in Europe, UK, USA and elsewhere to collect data on collections of Falkland bird skins and skeletons. At the National Museum of Scotland, he discovered a male Cobb's wren skin collected on Carcass Island in 1904 by a Dr Bowen, apparently a naval officer. This skin was registered as number

1926.109.12 and had been found among a batch of about 200 unregistered skins in the basement. It was measured by Surgeon Rear-Admiral John Stenhouse, a volunteer at the museum presumably in 1926 and labelled as Cobb's wren. The dimensions given for wing, tail, tarsus and bill match with the average dimensions given in Woods (1993). This specimen predates the recognised type specimen at the Natural History Museum Tring, also collected on Carcass Island, by about four years.



The type specimen was named as a species from a Carcass Island bird collected by Arthur Cobb in July 1908 (Chubb 1909). Cobb recorded in his notes and on the specimen label that he used rice as shot, which was probably a sensible precaution because lead shot of a size to kill geese would have blown the bird to pieces.

Arthur Cobb.

From 1909 until 1993, Cobb's wren was treated as a species by three authors: Chapman and Griscom 1924, Bennett 1926, Chapman 1934 and Bennett 1935. In discussing Cobb's wren affinities, Chapman and Griscom used specimens collected on Kidney Island and Sea Lion Island in 1915-16 by Rollo Beck. They concluded that it was obviously a representative house wren but was sharply distinct from continental races because it was almost as dark below as above, was noticeably larger, and occupied an insular habitat. They felt that it deserved specific rank, and Chapman (1934) reiterated this opinion when he stated that *T. cobbi* was "a specifically distinct representative of the continental *T. musculus*". However, although Hellmayr (1921) had not examined any Falkland specimens, he treated it as a subspecies of the mainland *T. musculus* (later usually merged with North American *T. aedon*), and this classification was followed by most authors without question.

Later, after examining Rollo Beck's Falkland specimens at the American Museum of Natural History, Hellmayr (1934) stated that they were nearest in colour to the geographic race *T. m. bonariae* of eastern Argentina, Uruguay and extreme southern Brazil, rather than the geographically nearest race in southern Argentina and Chile, *T. m. chilensis*. He noted that the "Falkland wren" was very much larger with a much stronger, longer bill and had no buff postocular streak, yet he maintained his original classification of it as a race of *T. musculus*.

In recent years, DNA studies of American wrens have questioned the lumping of *T. aedon* with *T. musculus* and suggested other closer relationships and a different split between geographically separated populations of *Troglodytes* wrens (Barker 2004; Brumfield and Capparella 1996; Rice et al. 1999). In Woods (1993), it was suggested that the Falkland Islands *Troglodytes* wren was sufficiently different in tolerance of predators, morphology and preferred habitat to be classified as a species endemic to the Falklands. BirdLife International (BirdLife International 2008) has accepted this hypothesis.

Kroodsmas and Brewer (2005) remarked that Cobb's wren differed from all other *Troglodytes* wrens because it had learnt to forage among seaweed deposited on tidal shores. They discussed the several troglodytid species of the Americas that occupied a wide range of habitats apart from closed tropical forest and agreed that Cobb's wren was obviously closely related but differed in its larger size and different plumage and ecology, which may be adaptations to the particularly harsh environment on sub-Antarctic Falkland shores.

Although no DNA evidence has been produced and a comparison of the songs of the continental wrens from southern South America and Cobb's in the Falklands has yet to be published, ornithologists who have watched and listened to house wrens in Patagonia and Cobb's wren in the Falklands consider that they are two species rather than races of the same species (M. Pearman and S. Imberti, personal communication).

D. Distribution

Cobb's wren is endemic to the Falkland Islands. Several races of the closely related house wren *T. musculus* have been described and this species is widespread from central America through South America to Tierra del Fuego.



World distribution of Troglodytes musculus (grey shading) and T. cobbi (red) for comparison.

Map based on that in Handbook of the Birds of the World, Volume 10, Lynx Edicions, 2005

Presence/absence data for Cobb's wren and introduced mammals have been collected from a variety of sources, including landowners and local and visiting naturalists and scientists. Records from 157 sites are already noted on the wildlife records database held by Falklands Conservation. Whilst there are many islands for which the invasive mammal status is unknown, it can be accepted that any islands where rat or mouse presence has been confirmed will not support a breeding population of Cobb's wren (Hall et al. 2002). Similarly, those few islands where Patagonian foxes were introduced in the 1930s do not support Cobb's wren and have few other songbirds.

Tussacbirds and grass wrens are not indicators of an island being rodent-free. Whilst both bird species are usually absent from the smaller islands with rats, tussacbirds and grass wrens can survive in very small numbers on larger islands with rats, provided there is sufficient suitable habitat.

Cobb's wren is confirmed as present and probably breeding on 59 islands (Figure 1 and Appendix 1). Although breeding (i.e. nests, or adults feeding juveniles) has not been confirmed at many islands, singing males have been recorded at about 50 of these sites. Due to the sedentary behaviour of adult males, it can be assumed that a male singing persistently is defending breeding territory. The islands with Cobb's wren present are mostly within small groups, separated from each other by up to 50 km of sea. Dedicated surveys for the presence or absence of Cobb's wren and rats or mice only began in September 2008 and therefore, the spread of records is uneven.

There is little hard evidence, only suggestion from incidental observations, that Cobb's wren was once widespread on all suitable shorelines with tussac grass. There have been no substantiated records of Cobb's wren breeding on East or West Falkland within the past two centuries.

More than half of the islands on which Cobb's wren is currently found are less than 50 ha in size, and one quarter of the islands are less than 10 ha (Appendix 1). However, island size is not critical, as Cobb's wren is generally concentrated along coastal strips with tussac grass. For example, on Lively Island (5,585 ha), the largest island to hold Cobb's wren, it has only been recorded at a few sites. Island size may only be important when considering biosecurity and how rodent monitoring and contingency plans need to be developed and implemented.

Forty-two of the 59 islands where Cobb's wren is probably breeding are definitely free of rats and/or mice, cats and foxes. Twelve islands are probably free of rats and five have an uncertain rat status. (Table 1 and Appendix 1). The presence of Cobb's wren is uncertain on a further 11 islands where the record and/or rodent status is also unclear and these islands require further surveys.

Quillfeldt et al. (2008) state that Cobb's wren is absent from South Jason and South Fur and make the point that these islands are both rat-free and "care should be taken in the often generalised assumption that rodents are solely the reason for its absence." However, Strange et al (1988) record Cobb's wren as present on South Jason and South Fur and many were singing on South Fur in November 1997 (R. Woods) and on South Jason in November 2006 (G. Harrison and J. Meiburg, personal communication) so the presence of the species is substantiated at both these rat-free islands.

The species is confirmed absent from a further 75 islands, although rats are likely to be or are absent from six of these islands. These negative-negative records include two rock stacks that do not contain suitable habitat (Channel Rock and Hecate Rock), some small (1 ha) islets in Choiseul Sound, Sedge Island (which had foxes between the 1930s and 1980s) and Wreck Island, Circum Island (which possibly has mice rather than rats) and Pyramid Island.

Individual Cobb's wrens, probably juveniles dispersing from nearby breeding populations, have been observed occasionally in summer, autumn or winter at eleven sites with rats (Table 1). There have been no breeding records at these localities.

Table 1. Cobb's wren and rat (and mice and fox) status on 157 sites

Cobb's Status	Rodent status						Total
	<i>Absent</i>	<i>Probably absent</i>	<i>Uncertain</i>	<i>Probably present</i>	<i>Present</i>	<i>Absent (eradicated)</i>	
Absent	2	8	4	2	50	9	75
Uncertain		6	4	1			11
Present	42	12	5				59
Occasional					10	2	12
Total	44	26	13	3	60	11	157

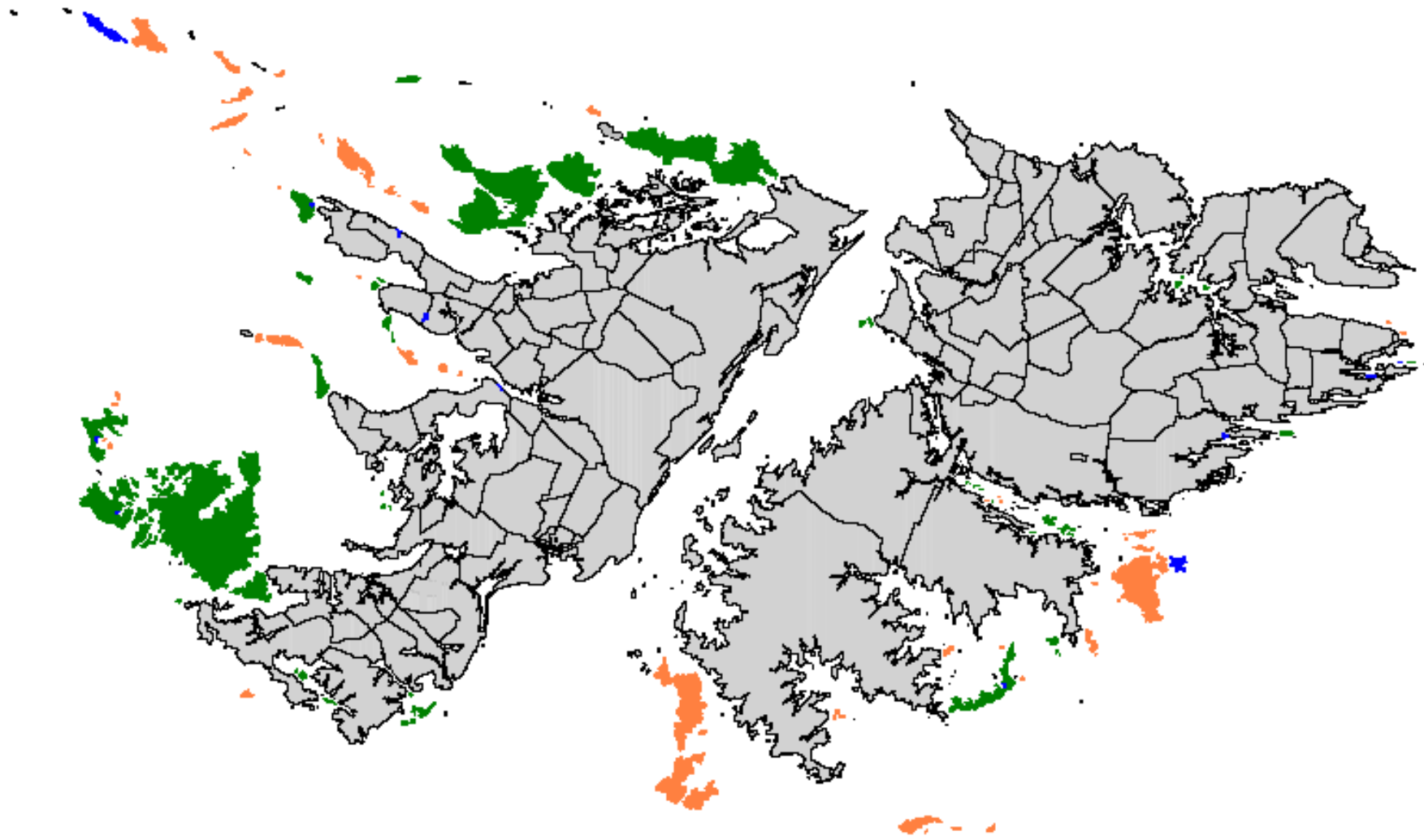


Fig. 1 Distribution of Cobb's wren on 59 islands (orange), 12 sites where they are occasionally sighted (blue) and rodent status at 75 sites, where Cobb's wren is absent (green). Cobb's wren does not breed on mainland East and West Falkland where there are mammalian predators.

E. Habitat and Breeding

The optimum habitat for Cobb's wren is dense tussac growing from the high water mark behind boulder beaches with accumulated dead kelp. On the beaches, Cobb's wren apparently takes marine invertebrates including amphipods and in the dense tussac grass, it hunts for land invertebrates such as the flightless camel cricket. However, Cobb's wren appears to be relatively adaptable, with some breeding pairs having little access to coastlines and others maintaining territories in rushes, among rock outcrops up to 1.6 km from coastal tussac grass and at coastal sites without tussac grass. Some males hold territories in dense native or introduced shrubs, introduced *Cupressus macrocarpa* trees and pasture grasses.



Dyke Paddock, Carcass Island.

Tussac grass and kelp on a rocky boulder beach: this is ideal Cobb's Wren habitat

On Carcass Island in 1983, territories extended between 15m and 100m along a coastline. Length appeared to be dependant on food availability and the presence of dense tussac grass, with the highest densities where territories included parts of the shoreline (Woods 1984). In 1983, sample plots on Kidney Island and Carcass Island had population densities of four territorial males per hectare in optimum habitat and two males per hectare in less suitable conditions (Woods 1993). Territorial competition between adjacent males can be fierce.

The nest is a domed ball with an entrance hole about 6 to 8cm wide near the top, made of grasses and thickly lined with soft feathers of several species. It is usually well hidden in a gap amongst tussac stems or a tussac pedestal or in a rock crevice, between ground level and about 60 cm above ground. Three to four pinkish eggs, covered with many tiny spots of red or light brown are laid between early October and December and two broods are possibly reared in a season. There is no other detailed information on the breeding cycle because the species has not been studied intensively, except for longevity in a sample population.

Twenty-four singing adult males were colour-banded on Carcass Island in 1995 by Don Kroodsmma and Robin Woods and followed up annually by RW. Mapped sightings showed that they generally remained very close to their original trapping sites and could survive until at least six years old. Comparatively, 17 singing grass wrens colour banded on Kidney Island in 1995 survived at least five years and apparently remained within about 100 m of their original place of trapping (Woods and Woods 2006).

F. Movements

There is no evidence of regular migratory movements. On the contrary, evidence from Carcass Island suggests that adult males tend to remain in or near their territories over several breeding seasons. Dispersive behaviour by juveniles is the only evidence of local movements outside the breeding season.

Cobb's wrens have been recorded at various settlements on islands with rodents during autumn and winter months but never breeding (Table 2). These settlements are West Point Island, Beaver Island, Bleaker Island, New Island, Steeple Jason Island and Dunbar and Roy Cove (West Falkland), and in Stanley and at Fitzroy (East Falkland). In most situations, these birds are travelling more than 2 km and upwards of 5-7 km over water to reach land, which is a long distance for a bird that appears to be a weak and reluctant flier. In the settlements, Cobb's wrens use predominantly shrub vegetation, including boxwood.

Table 2. Location of settlements and islands with rodents where Cobb's wren has been sighted

Settlement/Island	Frequency	Period of year	Duration	Possible source population	Possible source distance
Beaver	Most years	Autumn-winter	Weeks	Coffin Island	13 km to N, 6 km over water
Bleaker	Infrequent	Mid summer	Single sighting	Sandy Bay Island	2 km to E
Bottom	One survey	Jan	1 day survey	Kidney Island	5km to N
Dunbar	Infrequent	Autumn-winter	Days	Dunbar Island	7 km to N
Fitzroy	Infrequent	Autumn	Days	Direction Island or Kelp Point Is?	15 km to S or 8 km to SE
New	?	Autumn-winter	Weeks	Beef, Coffin Islands	Less than 1 km to E
North East	Infrequent	Spring & Summer	1-3 day visit	Lively Island	0.25 km to W
Roy Cove	Infrequent	Autumn-winter	Months	Hummock Island	7.5 km to W , 5 km over water
Stanley	Infrequent	Autumn/winter	Days	Kidney Island	13 km to NE, 3 km over water
Steeple Jason	Infrequent	Mar & Nov	Single sightings	Grand Jason Island	4 km to E, 2 km over water
Town Point, Narrows Farm	Infrequent	Autumn	Single sighting	Middle Island	7 km to W, 2 km over water
West Point	Most years	Autumn	Weeks	Gibraltar Rock	2.3 km to NW

G. Land management

Twenty-four different people and organisations (including five conservation organisations that own one third of the islands), own the 68 sites with records of Cobb's wren. FIG owns 14 of the islands and seven more in proxy through Falklands Land Holdings and the Falkland Islands Development Corporation (Table 3 and Appendix 1).

Of the 59 islands where Cobb's wren is apparently resident and breeding, ten are designated National Nature Reserves under the Conservation of Nature and Wildlife Ordinance 1999 and most have little human use. Only six islands are farmed or visited by tourists. Carcass Island has livestock, overnight visitors for at least half of the year and cruise ship passengers during the summer, whilst Sea Lion Island is also a tourism island but without stock. George Island is inhabited for most of the year and has stock and some cruise ship tourism, whilst Barren Island has sheep and cruise ship tourism but is not inhabited. Lively Island and Speedwell Island are sheep farms, which are inhabited for most of the year.

Table 3. Landowners of islands and sites where Cobb's wren has been recorded

	Owner	Present	Occasional	Total
1	E. Anderson	1		1
2	Antarctic Research Trust	4		4
3	Dean Bros	1		1
4	H. Delignieres & M. Guillaumot		1	1
5	D. Donnelly	1	1	2
6	D. Eynon		1	1
7	Falklands Conservation	11		11
8	Falkland Islands Company	2		2
9	Falkland Islands Development Corporation	1		1
10	Falkland Islands Government	12	2	14
11	Falklands Land Holdings	5	1	6
12	A. Gisby	1		1
13	A. Jaffray	2		2
14	A. & M. Marsh	1		1
15	C. & L. May	5		5
16	R. McGill	1		1
17	R. Napier	3	1	4
18	New Island Conservation Trust		1	1
19	S. Poncet	2	2	4
20	S. Poncet & I. Bury	1		1
21	M. & P. Rendell	2	1	3
22	SubAntarctic Foundation for Ecosystem Research	1		1
23	Unsure (Sisters)	1		1
24	Wildlife Conservation Society	2	1	3

H. Response to rat eradication

Rat eradication was attempted on eleven islands between one and seven years ago and post-eradication surveys have confirmed rat-free status (Table 4). Except for North East Island, all the islands successfully cleared of rats are more than five and up to 27 km from an island with breeding Cobb's wrens. No Cobb's wrens have been recorded on nine of the islands that have been checked.

During a survey of North East Island in February 2003 before eradication, a juvenile Cobb's wren was seen at the point nearest to rat-free Lively Island. After successful rat eradication in the winter of 2003, single birds were seen in the same area in February 2004 and September 2006 (Poncet 2006). On Bottom Island (Port William), rat eradication occurred in the winter of 2001 and a juvenile Cobb's wren was seen in January 2004 (C. Bealey personal communication to R. Woods).

On Double Island, Outer Island, Harpoon Island (Queen Charlotte Bay) and Rookery Island (Beaver Island) where rats were cleared seven and six years ago respectively, grass wrens have been seen foraging on the boulder beaches (Woods 2008 and Sally Poncet personal observations). Where both species are present, Cobb's wren is normally dominant on the beaches and grass wrens very rarely venture into this habitat (Woods 1984).

Table 4. Cobb's wren status on 18 islands where rat eradications have been attempted

Island	Group	Date of eradication	Post check	Status	Distance to nearest known breeding site (km)
Bottom	Port William	2001	y	One record	5
Channel North	Beaver	2007	y	Absent	7
Channel South	Beaver	2007	y	Absent	7
Cucumber	Beaver	2002	y	Absent	10
Double	Queen Charlotte Bay	2001	y	Absent	25
Governor	Beaver	2008	n		13
Green	Beaver	2007	y	Absent	14
Halt	Bleaker	2006	n		8
Harpoon	Queen Charlotte Bay	2001	y	Absent	25
Letterbox	Weddell	2007	n		11
Little Coffin	Beaver	2007	y	Absent	14
North East	Lively	2003	y	Occasional	0.2
Inner Northwest	Falkland Sound	2007	y		40*
Outer Northwest	Falkland Sound	2003	y - rats present	Absent	41*
Outer	Spring Point	2001	y	Absent	27
Rookery	Beaver	2002	y	Absent	11
Skull Bay	Beaver	2007	n		18
Stick in the mud	Beaver	2007	y	Absent	14

* It is possible that there are Cobb's wrens on Cat Island, 5 km north of the islands of Inner and Outer Northwest

I. Legal and Protected Status

Cobb's wren has received little attention from FIG, although it was listed in Schedule I to the Wild Animals and Birds Protection (Amendment) Ordinance 1913, a few years after the species was named and given full protection throughout the year. However, in the August 1935 issue of the Gazette, an order of the Executive Council deliberately removed the "wren" (it is not explicit whether this means Cobb's wren or grass wren) from Schedule I (protected species) with several others for no obvious reason.

In the Wild Animals and Birds Protection Order 1955, made under section 7 of the Wild Animals and Birds Protection Ordinance (1955), Cobb's wren is not mentioned in any context. Similarly, there is no mention in the Wild Animals and Birds Protection Ordinance 1964. However, this situation was amended and improved in the Conservation of Wildlife and Nature Ordinance 1999, which states that all wild birds are protected with the exception of those that may be killed outside a closed season or at any time by authorised persons.

J. Current Conservation Status

As more island surveying is conducted, whether dedicated for Cobb's wren or data collected ad hoc with island visits, the number of islands apparently supporting a breeding population has increased. The breeding birds survey of 1983/1984 - 1992/1993 indicated breeding on 12 offshore islands and islets, and the total population was estimated to be 1,300-2,400 pairs (Woods and Woods 1997).

A further 23 records, collected during surveys for striated caracaras in 1997 and 1998, increased the known range of Cobb's wren, and estimated the total population to be about 6,000 pairs (Woods 2000). The additional islands since examined for presence of Cobb's wren or introduced mammalian predators, (making around 150 islands) are all very small and the estimate of ca. 9,000-16,000 individuals or ca. 6,000 pairs is still considered to be realistic.

Although this appears to be substantial and may sound secure, further accidental introductions of mammalian predators could eliminate any island populations. Therefore the current IUCN conservation listing of *Vulnerable* for Cobb's wren should remain.

3: Threats

There are a number of processes that threaten Cobb's wren. The first major problem is the introduction of invasive mammals. Cobb's wren cannot maintain a breeding population on islands with Norway rats (*Rattus norvegicus*), black rats (*Rattus rattus*), mice (*Mus musculus*) or Patagonian foxes (*Lycalopex griseus*), alone or in combination. The effects of feral cats on small birds are barely known in the Falklands, but there is a very strong likelihood that cats would extirpate a Cobb's wren population if introduced to a predator-free island. A secondary problem is the shortage of detailed information about the biology and habitat requirements of the species, to guide appropriate management. It is not known how Cobb's wren would have fared living with the warrah (Falkland Island wolf, *Dusicyon australis*), which is now extinct. However, the warrah was only recorded on East Falkland and West Falkland and Cobb's wren may already have been restricted to offshore islands.

It is very probable that these introduced mammals are predatory on the eggs, young and adults of Cobb's wren, while mice and rats compete for the same ecological niche. Radio-tracking of Norway rats on Bleaker Island (D. Christie, personal communication) and field observations show that rat density is highest on the productive coastlines where they feed on plant seeds and invertebrates, the latter also being favoured by Cobb's wren.

Recent evidence from Bleaker Island shows that extirpation by Norway rats can occur within 20 years of their arrival; Cobb's wren was definitely present in 1960 but Norway rats were introduced accidentally in the mid-1980s and by 2003, if not earlier, Bleaker Island had no Cobb's wrens.

Fire is suggested to be a minor threat because while a number of islands with Cobb's wrens have considerable fire history, extirpation does not seem to have occurred. For example, there was a hot flash fire on Green Island, a small (8.5 ha) tussac grass island in Choiseul Sound, on 29th January 2004, which then continued afterwards as a slow burn until October 2004. The fire destroyed over 90% of the tussac canopy and ca. 10% of the island's peat soil. On 30 March, while the island was still burning, a wildlife survey was conducted and Cobb's wrens were recorded on two small unburnt sections of coastline. Birds were also seen on subsequent visits in 2006, and it is thought that the original population survived the fire despite significant changes to the island's tussac grass habitat.

Other minor threats raised by workshop participants were loss of habitat by livestock over-grazing tussac grass, invasive plants such as gorse out-competing native plants, genetic bottlenecking and disease, and in the long-term, sea level rise.

4: Current Species Management

The Falkland Islands Government is soon to adopt a Falkland Islands Biodiversity Strategy 2008-2018. The vision for the Biodiversity Strategy is: *“We will conserve and enhance the natural diversity, ecological processes and heritage of the Falkland Islands, in harmony with sustainable economic development.”*

The action tasks are grouped under four themes. Theme A is ‘Protecting the general environment’, and in this section, the management of invasive species (e.g. rats and mice) is one of four high biodiversity priorities. Theme B is ‘Protecting priority species and habitats’ and Cobb’s wren is one of the species identified as requiring a Species Action Plan.

During the workshop, participants identified a variety of other tasks being undertaken in the Falkland Islands that also form part of the current management of the species. These include:

- Implementation of the UK Government – Falkland Islands Government Environmental Charter
- Implementation of the Conservation of Nature and Wildlife 1999 legislation, including research licences and species protection
- Management of islands owned by FIG including access permits and a post-visit report system
- Development of management plans for islands, which includes nature reserves owned by Falklands Conservation and FIG
- FIG responding to fires in camp
- FIG biosecurity protocols in the Ports & Harbours booklet and for FIG islands
- Some limited biosecurity for rodent-free islands such as for George Island, Sea Lion Island and Carcass Island
- Local and international visitors being given information about biosecurity issues with travel
- Biosecurity protocols in place for local vessels (e.g. Concordia Bay and Condor)
- Survey forms being issued to interested people using yachts
- Information gathering – surveys, anecdotal observations, database management – by a variety of people
- Eradication of rats from 18 islands
- Rat control at settlements and bird colonies
- Investigation of mouse eradication
- Attempted fox eradication (and a successful one on Sedge Island about 30 years ago)
- Managed grazing
- Replanting tussac grass at various sites
- School environmental education
- Free educational visits for the public to Kidney Island and Top Island as in 2001

5: Factors that Influence or Limit the Action Plan

Workshop participants identified a number of logistical, administrative and technical factors that may influence the implementation of the Species Action Plan. These were:

- Availability of funds and local expertise
- Mixed land ownership and having landowner support
- Transport
- Lack of interest in Cobb's wren – greater profile for penguins and albatrosses, although there is some specific interest
- Lack of information, e.g. population levels, viability of translocations, breeding biology, diet, dispersal of young birds
- Having the support of FIG and Falklands Conservation with active involvement
- Appropriateness of translocations

The support and involvement of FIG and landowners (including Falklands Conservation) was seen as critical to the success of the Cobb's wren Species Action Plan. Some logistical concerns related to the availability of funding, suitable vessels and personnel, all of which are limited in the Falkland Islands.

One factor was the appropriateness of translocating Cobb's wren. Two workshop participants – New Zealanders Clare Miller and Derek Brown – have experience in bird translocation programmes. In New Zealand, animal translocations are a very cost-effective, fundamental tool in the conservation of a number of birds and reptiles. Translocations have failed where the threats have not been addressed or the habitat is not suitable, but normally well-planned translocations are very successful.

In New Zealand, there is a standard protocol and an application procedure for gaining approval to translocate birds and the minimum number of birds translocated to a new site is ideally 25-30 to ensure high genetic variability. Any translocation protocol should address how the birds will be transferred, as there have been some cases of birds dying before being released or being released in a weakened state. One key problem to overcome when planning a bird translocation is their homing instinct, which is strongest in adults. Therefore, in New Zealand, surplus juveniles are usually translocated rather than adults.

Research prior to translocation can be very expensive and thus, in New Zealand where a bird species is not critically endangered and translocating a few individuals would not affect the national population, monitored trial translocations are attempted in the first instance. A well monitored but failed translocation exercise can yield as much information as research alone. This will depend heavily on how the experimental translocation is carried out and who has the responsibility for recording the process and subsequent monitoring.

However, it is clear from experiences in New Zealand and elsewhere that re-introductions should not be entered into lightly and there must be a very good understanding of the bird's ecology and biology before any plan is put in place.

6: Action Plan

The Cobb's Wren Species Action Plan sets out a clear vision for protection of the species and six key objectives to be achieved within ten years. Each objective has between three and nine action tasks, which are assigned with a priority rating, a timetable and responsibility for implementation. More than 30 tasks are listed, with varying priority, but the first should be the investigation of more offshore islands to inform planning of further rat eradications and assessment of the likelihood of unaided recolonisation by Cobb's wren after clearance.

A number of stakeholders was identified to assist or lead in the implementation of individual action tasks. The stakeholders included landowners, Falklands Conservation, other non-governmental organisations, independent researchers, Universities and the FIG Environmental Planning Department. It is recommended that the Plan is managed and progressed by a Species Action Plan Co-ordinator.

10 year Aim
To secure and increase the current population and distribution of Cobb's wren.

We value Cobb's wren because it is:

- part of the "Falklands experience"
- an icon of the Falklands
- tame
- entertaining
- charismatic
- important to locals and visitors (which means tourism potential)
- an endemic species, globally threatened

Objectives

A. Research

Objective: research conducted to clarify taxonomy and biology of Cobb's wren

B. Monitoring and surveys

Objective: to investigate habitat requirements and ensure that management decisions are effective

C. Active management

Objective 1: restoration - to create new habitats and enhance existing habitat

Objective 2: translocations - to increase range and population

D. Biosecurity

Objective: to protect existing populations

E. Education and awareness raising

Objective: to maintain and where possible increase the level of support and interest in Cobb's wren

F. Plan management

Objective: the Plan is effectively managed and disseminated

Action Tasks

A. Research

Objective: research conducted to clarify taxonomy and biology of Cobb's wren

	Action	Priority	Timing	Responsibility for Action
1	Investigate population genetics to understand connectivity, population viability and history; use recorded vocalisations and genetic samples to determine status of this insular taxon	Medium	Start 2010, duration 3-4 years	SAPC and FC to coordinate approaches to Universities and independent researchers
2	Improve understanding of breeding biology, diet and dispersal in order to inform implementation of this SAP	High	Start 2009	SAPC with EO and FC to produce project proposal and provide supervision

B. Monitoring & survey

Objective: to investigate habitat requirements and ensure that management decisions are effective

	Action	Priority	Timing	Responsibility for Action
3	Obtain basic status information on Cobb's wren, habitat and invasives for a prioritised list of islands	High	Immediate, ongoing throughout duration of SAP	SAPC, support from EO, FC & CWSG and involving landowners/stakeholders
4	Obtain habitat suitability information for candidate restoration islands to allow priorities to be set	Medium	Ongoing, linked to 3 above	SAPC with input from EPD and landowners.
5	Develop rolling monitoring system incorporated into broader monitoring strategies and using existing opportunities			
a	choose a few widely distributed islands for regular abundance monitoring using a standard method	Low	2009/10	SAPC to determine method through cooperation with FC CWSG and landowners
b	obtain information from landowners/users	Medium	2009/10 and ongoing	SAPC and FC to coordinate approaches to landowners/users
c	before and after monitoring of eradication islands	High	Immediate and ongoing	SAPC to compile list of persons monitoring and to agree standard methodology with FC/EO, observers and landowners. SAPC to plan and co-ordinate.

C. Active Management

1. Restoration

Objective: to create new habitats and to enhance existing habitat.

	Action	Priority	Timing	Responsibility for Action
6	Identify priority islands to be cleared of rats, using criteria of connectivity, cost and availability, and undertake eradications	High	Ongoing	SAPC with CWSG and landowners
7	Identify priority areas for protection (e.g. boulder beaches, etc) and undertake restoration activities such as fencing, tussac grass planting	Medium	Ongoing	FC coordinating with SAPC and landowners; FC small grants fund and FIG ESB available for such projects
8	Provide assistance to landowners to undertake eradications and restoration of habitat	High	Ongoing	EPD and FC

2. Translocations

Objective: to increase population and range.

	Action	Priority	Timing	Responsibility for Action
9	Identify islands where Cobb's wren is unlikely to recolonise naturally	Low	After 2010	SAPC with CWSG and landowners
10	Follow a translocation framework similar to that used in New Zealand in order to produce a translocation plan	Low	After 2010	SAPC with FC in consultation with CWSG
11	Conduct a pilot study that is local (i.e. birds translocated from local area) and low cost and then monitor results	Low	After 2010	SAPC to draw up pilot study proposal liaising with CWSG and landowners
12	Review pilot translocation, and if appropriate, expand programme	Low	After 2010	SAPC and FC with CWSG

D. Biosecurity

Objective: to protect existing populations.

	Action	Priority	Timing	Responsibility for Action
13	Review biosecurity legislation and policies (links to general current inter-island biosecurity initiatives)	Low	2010	SAPC with EO
14	For rodent-free islands, identify pathways for invasive species, with means of detecting, monitoring and contingency response in order to prepare site specific biosecurity plans for these islands	High	2009 and ongoing	Initially SAIS Co-ordinator, and EO later involving SAPC CWSG and landowners.
a	for inhabited islands: Carcass, George, Lively & Speedwell	High	2009 and ongoing	SAPC, SAIS Co-ordinator and EO, with landowners and transport operators
b	for uninhabited islands: develop procedure and plans to identify pathways where appropriate	High	2009 and ongoing	SAPC with FC and landowners
15	Implement biosecurity plans, including assistance, support and expertise to landowners	High	2009/10	SAIS Coordinator & EO during 2009, beyond EO with FC.

E. Education and awareness raising

Objective: to maintain and where possible increase the level of interest in and support for Cobb's wren.

	Action	Priority	Timing	Responsibility for Action
16	Maintain current status of legal protection and FIG commitment	Low	Ongoing	EO_and Councillors
17	For the general public, 2 local stories per year	High	2009 and ongoing	SAPC and FC/EO
18	For landowners, Farmers Week workshop	Medium	2009 or 2010	SAPC with CWSG
19	For overseas visitors, one international story per year	Medium	2009 and annually	SAPC with EO/FC
20	For school children, use of the FC-provided curriculum material	Medium	2009	FC and schools
21	WATCH Group has a Cobb's wren theme session	Medium	2009	FC
22	Subsidised annual trips to Kidney Island, possibly more than one p.a. and possibly within a 'Cobb's Wren Week'	Low	2009 and ongoing	FC, EO, SAPC and
23	Fact sheet or leaflet and possibly a poster	Low	2009	EO and FC
24	Stamp – Cobb's wren featured in stamp issue, to meet 2009 centenary	Medium	2009	EO, and Stamp Committee of Post Office

F. Plan management

Objective: the Plan is effectively managed and disseminated.

	Action	Priority	Timing	Responsibility for Action
25	Appoint a Species Action Plan Coordinator (SAPC)	High	2009	FIG/EPD to determine appointment process and progress. To be agreed by FC/EPD/SAIS during 2009
26	Identify Islands Database manager	High	2009	FC to manage alongside FI wildlife database
27	Produce an annual report on SAP progress	High	2009	SAPC and CWSG
28	Ensure that stakeholders are progressing their nominated tasks	High	2009 and ongoing	SAPC to monitor progress with CWSG
29	Identify potential funding sources and make applications	High	2009 and ongoing	SAPC with FC/EO
30	Set up and support Cobb's Wren Steering Group (CWSG) from interested persons	Medium	2009 and ongoing	SAPC initially, then with CWSG
31	Ensure effective dissemination to public and other stakeholders	High	2009	SAPC
32	Identify potential contributors to CWSG; agree terms of reference with members of CWSG and encourage participation	Medium	2009	SAPC/EO with FC

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8: Appendices

1. List of Islands Surveyed for Cobb's Wren and Rodents

Key:

Cobb's Status

1 = absent

2 = uncertain status

3 = confirmed present

4 = occasional, not breeding

Rodent/fox Status

1 = absent

2 = probably absent

3 = uncertain status

4 = probably present

5 = confirmed present

6 = eradication attempted

JR Survey team 1997 = Jonathan Meiburg, Mike Morrison, Ann Prior & Robin Woods

JR Survey team 1998 = Mike Morrison & Robin Woods

JR Survey team 2006 = Giselle Botha, Gavin Harrison, Jonathan Meiburg, Mike Morrison & Robin Woods

Felton's Project team 2001 = Jeannette Clarke, Jonathan Felton, Stacey Steen-Macdonald & Robin Woods

Island sizes and locations are taken from: Woods RW. 2001. A survey of the number, size and distribution of islands in the Falklands archipelago. The Falkland Islands Journal 7:1-25

Island	Location	Owner	Grid Square	Size (ha)	Cobb's Status	Rodent/fox Status	Recorder	Date	Comments
1st Passage	Passage Group	Marsh	TC47	750	1	5	JR Survey team	1997	
2nd Passage	Passage Group	Marsh	TC37	650	3	2	JR Survey team	1997	Adult with food for young
3rd Passage	Passage Group	Anderson	TC37	80	3	3	Islands database record	Not known	Common
Annie	Speedwell	Gisby	UC10	45	3	1	Felton's Project	2001	Previously grazed, many TB
Arrow (Northwest)	Choiseul Sound	FLH	UC65	30	1	5	D Brown	18/09/2008	
Arrow (Southeast)	Choiseul Sound	FLH	UC65	30	1	5	D Brown	18/09/2008	Rats, rabbits
Barren	Speedwell	May	UB19	1150	3	1	C May	2008	
Beauchene	Beauchene	FIG	UB53	170	3	1	N Huin	2005	
Beaver settlement	Beaver	Poncet	TC04,05	4856	4	5	S Poncet	2008	
Beef	New	FC	TC06	10	3	2	Felton's Project	2001	Adult with food for young
Bense	Bense	SAFER	TC58	110	1	5	P Carey	2008	
Big Arch	Arch	FIG	TC60,61	200	1	5	JR Survey team	1998	
Big Samuel	Choiseul Sound	FLH	UC84	50	1	5	D Brown & R Woods	17/09/2008	No sheep seen
Bird	Bird	FIG	TC31	120	3	1	JR Survey teams	1998, 2006	
Bleaker settlement	Bleaker	Rendell	UC61,71	2070	4	5	M. Rendell	2003 - 2007	4 separate single sightings, mid summer
Bottom	Port William	FIG	VC47/57	8	4	6	C&S Bealey	01/01/2004	Rat eradication 2001, 1 juvenile seen
Boundary	Hill Cove	Unsure	TC89	2	1	4	R Woods	2001	No CW or TB
Brandy	Sea Lion	ART	UB68	25	3	1	JR Survey team	1998	Many, adult with food for young
Carcass	Carcass	McGill	TD41,50,51	1894	3	1	JR Survey team	1997	Many
Channel I. North	Beaver	Poncet	TC15	28	1	6	S Poncet	2008	Rat eradication 2007
Channel I. South	Beaver	Poncet	TC15	25	1	6	S Poncet	2008	Rat eradication 2007
Channel Rock	Beaver	FIG	TC15	1	1	1	S Poncet	13/02/1996	Unsuitable habitat
Circum	Weddell	Gisby	TC33	24	1	2	Felton's Project	2001	

Island	Location	Owner	Grid Square	Size (ha)	Cobb's Status	Rodent/fox Status	Recorder	Date	Comments
Clarke's Islet	Jason	WCS	TD13	5	3	2	JR Survey team	1997	2 singing
Cliff	Bense	SAFER	TC59	20	3	2	P Carey	1999	
Cliff Knob	New	FC	TC06	2	2	2	Islands database record	Not known	Record from I. Strange tussac grass report
Cochon	Berkeley Sound	FIG	VC48	8	3	1	T Reid	2005	
Coffin	New	FC	TC05	45	3	2	Felton's Project	2001	
Cross	Port Stephens	Berntsen	TC41	65	1	5	JR Survey team	1998	Horse grazing, heavily grazed in past
Cross Islet 'Five'	Port Stephens	Berntsen	TC41	<1	1	5	JR Survey team	1998	
Cross Islet 'Four'	Port Stephens	Berntsen	TC41	2	1	5	JR Survey team	1998	
Cross Islet 'Six'	Port Stephens	Berntsen	TC41	<1	1	5	JR Survey team	1998	
Cross Islet 'Two'	Port Stephens	Berntsen	TC41	3	1	5	JR Survey team	1998	
Cucumber	Beaver	Poncet	TC14	3	1	6	S Poncet	2008	Rat eradication 2002
Double	Queen Charlotte	FC	TC54	9	1	6	JR Survey teams, Felton's Project	1998, 2001, 2006	Rat eradication 2001, passerines increased 2006
Dunbar	Carcass	Napier	TD60	225	3	1	JR Survey team	1997	Several
Dunbar settlement	West Falkland	Delignieres	TC69		4	5	M Delignieres	2007	Occasional sighting
Dyke	Weddell	McRae	TC33	1500	1	5	Felton's Project	2001	
East	Port Harriet	Kilmartin	VC26	140	1	5	T Eggeling	2008	
Elephant Jason	Jason	FIG	TD32	260	3	1	JR Survey team	1997	Fledged young
Emily	Barren	May	UB19	9	3	2	JR Survey team	1998	Fledged young
Fanny	Bay of Harbours	FLH	UC40	100	3	3	Cecil Bertrand	1930s (report 1983]	"Free of rats or mice" 1930s
Fitzroy settlement	East Falkland	FLH	VC16		4	1	A. Eagle	2007	Autumn, seen for a few days
Flat Jason	Jason	FIG	TD22,23	375	3	1	JR Survey team	1997	Several
Fox	Weddell	Anderson	TC15	80	1	5	S Poncet	1990s	
Fox Point Islet	Berthas Beach	FIC	VC04	1	3	2	T Reid	?2005	
George	George	May	UB09/UB19, UC00/UC10	2400	3	1	C May	2008	
Gibraltar Rock	West Point	Napier	TD30	20	3	1	JR Survey team	1997	Several
Gid's	King George Bay	FIG	TC77	30	3	2	JR Survey team	20/11/1997	CW & TB both present
Goose Green Islet W/Hare	Choiseul Sound	FLH	UC65	1.5	1	5	D Brown	18/09/2008	Sheep
Government Islet	Pebble	Dean	TD92	110	3	2	Felton's Project	2001	Adult with food for young
Governor	Beaver	Poncet	TC14	220	1	5	S Poncet	2008	Rat eradication 2008
Grand Jason	Jason	WCS	TD13	1380	3	1	JR Survey teams	1997, 2006	Several
Green	King George Bay	FIG	TC77	4	1	3	JR Survey team	1997	
Green	Beaver	Poncet	TC14	25	1	6	S Poncet	2008	Rat eradication 2007
Green	Lively	Poncet	UC94	8.5	3	1	S Poncet	26/06/2005	
Gull	Choiseul Sound	FLH	UC74	33	1	5	D Brown & R Woods	17/09/2008	Previously grazed cattle; 10 sheep present
Gull	Weddell	Gisby	TC15	25	1	5	Felton's Project	2001	
Halt	Bleaker	Rendell	UC71	13	1	5	AF Cobb	06/09/1910	Rat eradication 2006 by D. Christie & Rendells, not yet re-surveyed.
Harbour Is (2)	Weddell	Gisby	TC34	16	1	5	Felton's Project	2001	
Harpoon	Queen Charlotte	Rozee	TC55	3	1	6	Felton's Project, JR Survey	2001, 2006	Rat eradication 2001

Island	Location	Owner	Grid Square	Size (ha)	Cobb's Status	Rodent/fox Status	Recorder	Date	Comments
							team		
Hecate Rock	Beaver	FIG	TC05	<1	1	1	S. Poncet	13/02/1996	No suitable habitat?
Hummock	King George Bay	Donnelly	TC67	303	3	1	JR Survey teams, Felton's Project	1997, 2001, 2006	Adult with food for young
Irene	Lively	Jaffray	UC93	5	3	1	S Poncet	1990s	
Islet ¹¹ N/Gull	Choiseul Sound	FLH	UC74	1	1	5	D Brown & R Woods	17/09/2008	Sea lions; burnt in past?
Islet ¹⁸ WSW/Little Samuel	Choiseul Sound	FLH	UC84	6	1	3	D Brown & R Woods	17/09/2008	Mice faeces
Islet ²⁰ E/Big Samuel	Choiseul Sound	FLH	UC84	1	1	2	D Brown & R Woods	17/09/2008	No rat sign; no CW; previously grazed cattle (skull)
Keppel	Keppel	Fell	TD90,91	3626	1	5	R Woods, C Miller	2007	Mice & rats; destocked 1992
Keppel Islet	Keppel	Dean	TD91	8	2	2	Felton's Project	2001	Probably stocked in past; TB
Kidney	Berkeley Sound	FIG	VC48	32	3	1	R Woods et al	1959 onwards	Adult with food for young
Large	Adventure Sound	FLH	UC62	162	3	3	A F. Cobb	24/11/1910	
Letterbox	Weddell	FIG	TC15	2	1	5	S Poncet	2007	Rat eradication 2007
Little	Choiseul Sound	FLH	UC74	<1	1	2	D Brown & R Woods	17/09/2008	No rat sign, no CW, burnt ?
Little Bense	Bense	SAFER	TC59	40	1	5	P Carey	1997 onwards	
Little Coffin	Beaver	Poncet	TC14	24	1	5	S Poncet	2007	Rat eradication 2007
Little Motley	Motley Point	FC	UC92	10	3	2	JR Survey team	1998	Adults with food for young;
Little Samuel	Choiseul Sound	FLH	UC84	25	1	5	D Brown & R Woods	17/09/2008	Sea lion faeces; rat runs
Lively	Lively	Jaffray	UC93/94, VC03	5585	3	1	R Woods & J St Clair	2007	Adult with food for young
Low	Weddell	Anderson	TC15	75	2	3	G Clark	1984	
Low	Byron Sound	Napier	TD50	75	3	1	JR Survey team	1997	Many CW & TB
Middle	Choiseul Sound	FC	UC94/VC04	150	3	1	RW & N Woods, RW & RNBWS	1997, 2006	Many
Middle	King George Bay	FIG	TC67	155	3	2	JR Survey team	1997	
Middle Islet (E)	Choiseul Sound	FC	VC04	1	3	3	T Reid	2005	Seen from kayak
Middle Islet (W)	Choiseul Sound	FC	VC04	1	3	3	T Reid	2005	Seen from kayak
Motley	Motley Point	FC	UC82, 92	330	3	1	RW & N Woods	1997	Many
Narrows Farm	West Falklands	Eynon			4	5	J. Cromarty	2006	Cromarty (2006)
Natural Arch	Arch	FIG	TC60	88	1	5	JR Survey team	1998	
New settlement	New	NICT	TC05/06	2363	4	5	Ian Strange	2007	
North	New	FC	TC06	75	3	1	Nic Huin, Mike Morrison	2004/2005	
North East	Lively	Poncet/Bury	VC03	305	4	6	E Dunn, R Woods & S Poncet	2003, 2005	Rat eradication 2003, single juvenile 2003, 2005
North Fur	Jason	FIG	TD32	75	3	1	JR Survey teams	1997, 2006	Fledged young
North Point	Bleaker	Rendell	UC61	20	3	1	M Rendell	2005	
North Tyssen	Tyssen Group	Poole	UC24/UC25	250	2	2	R Poole	Infrequent visits during last 20 years	Overgrazed & eroded in 1987, IJ Strange
Northwest (Inner)	Falklands Sound	R. Gibbons (on lease to FC)	UC48	35	1	6	Felton's Project	2001	Rat eradication 2007
Northwest (Outer)	Falkland Sound	R. Gibbons	UC48	65	1	5	Felton's Project	2001	Rat eradication 2003, not successful

Island	Location	Owner	Grid Square	Size (ha)	Cobb's Status	Rodent/fox Status	Recorder	Date	Comments
		(on lease to FC)							
Outer	Spring Point	FC	TC54	20	1	6	JR Survey teams, Felton's Project	1998, 2001, 2006	Rat eradication 2001; passerines increased 2006, but no signs of CW or TB
Outer Triste (N)	Motley Point	FLH	UC82	18	1	5	JR Survey team	1998	
Outer Triste (S)	Motley Point	FLH	UC82	9	1	5	JR Survey team	1998	
Pebble	Pebble	Dean	UD01/11/21	1033 6	1	5	R. Evans	2008	
Penn	Weddell	Anderson	TC15	155	1	5	S Poncet	1990s	
Philimore	Lively	Poncet	UC93/94, VC03/04	353	3	1	S Poncet	1990s	
Pitt	Weddell	Gisby	TC25/TC15	45	1	5	Felton's Project	2001	
Porpoise	Bull Point	FIC	UB 49	<1	2	5	C Bertrand	1930s	
Pyramid	Lively	FC	UC83/93	8	1	2	A Hill to S Poncet	01/12/1993	
Quaker	Weddell	Anderson	TC25	195	1	5	S Poncet	1990s	
Rabbit	King George Bay	Bonner	TC58	178	1	4	JR Survey team	1997	
Rookery	Beaver	Poncet	TC04/TC14	25	1	6	S Poncet	2008	Rat eradication 2002
Rookery	Grantham Sound	FC	UC57	2.5	2	3	FC staff	Not known	
Rory's	Choiseul Sound	FLH	UC74	7	3	1	D Brown & R Woods	18/09/2008	CW singing
Roy Cove settlement	West Falkland	Donnelly	TC68		4	5	D Donnelly	2008	
Rum	Sea Lion	ART	UB58	7	3	1	JR Survey team	1998	Many, fledged young
Saddle	New	FC	TC06	35	3	1	Felton's Project	2001	Calling
Sand Bay & Islet	Arch Group	FIG	TC60/61	19	1	5	JR Survey team	1998	Many rat faeces
Sandbar	Tyssen Group	Poole	UC14	126	2	3	R Poole	1990s	Sightings need confirmation
Sandy	Tyssen Group	Poole	UC14	45	2	2	R Poole	1990s	Sightings need confirmation
Sandy Bay	Bleaker	Rendell	UC61	32	3	1	M Rendell	2005 - 27 -	
Saunders	Saunders	Pole-Evans	TD70,71,80,81	8500	1	5	Pole-Evans	2008	Rats, mice, cats, rabbits
Scott	Choiseul Sound	FLH	UC65	30	1	5	D Brown	18/09/2008	Previously grazed
SE Islet/Seccomb group	Choiseul Sound	FLH	UC65	1	1	5	D Brown	18/09/2008	
Sea Dog	Weddell	FIG	TC05	30	1	5	L Poncet, T Reid	2001, 2004	
Sea Lion	Sea Lion	FIDC	UB58	905	3	1	JR Survey team	1998	Fledged young
Sea Lion	Choiseul Sound	FLH	UC84	160	1	5	D Brown & R Woods	17/09/2008	Sea lion faeces; previously grazed sheep
Sea Lion Easterly	Sea Lion	ART	UB78	85	3	1	JR Survey team	1998	Many
Seal	Lively	FIC	UC83/93	27	3	1	S Poncet	1993	
Seccomb	Choiseul Sound	FLH	UC65	25	1	5	D Brown	18/09/2008	Sheep
Sedge	Jason	Hawksworth	TD62	330	1	2	JR Survey teams	1997, 2006	No rats, R. Summers
Ship	New	FC	TC06	9	1	3	Felton's Project	2001	Burrows of rat type found
Sister (1 of 3)	Bleaker	Unsure	UC61	2	3	2	A F Cobb	5/1/1922	
Skull Bay	Beaver	Poncet	TC14	5	1	5	S Poncet	2007	Rat eradication 2007
South Fur	Jason	FIG	TD31	25	3	1	JR Survey teams	1997, 2006	Many
South Jason	Jason	FIG	TD21	375	3	1	JR Survey team	2006	Plenty
Speedwell	Speedwell	May	UC10,11	5150	3	1	R Woods	1995	Adults with food for young

Island	Location	Owner	Grid Square	Size (ha)	Cobb's Status	Rodent/fox Status	Recorder	Date	Comments
Split	South of West Point	Gibbons	TC49	220	1	3	JR Survey team, Felton's Project	1997, 2001	Patagonian foxes from 1930s; sheep there before 1893 (per K Bertrand)
Split	Beaver	Poncet	TC05	70	1	5	S Poncet	1990s	
Stanley	East Falkland	FIG	VC37/47		4	5	N Huin & T Eggeling	???	Individuals only, Autumn or winter
Steeple Islet	Jason	FIG	TD03	22	3	1	JR Survey teams	1997, 2006	Several
Steeple Jason	Jason	WCS	TD03,04	790	4	5	JR Survey team , N Huin	1997 & 2006	Mice widespread, only single birds seen, possibly from Steeple Islet
Stick-in-the-mud	Beaver	Poncet	TC14	3	1	5	S Poncet	2008	Rat eradication 2007
Tea	Beaver	Poncet	TC14	310	1	5	S Poncet	2008	
Ten Shilling Bay (W)	Port Stephens	Robertson	TC41	30	1	5	JR Survey team	1998	
Ten Shilling Bay (E)	Port Stephens	Robertson	TC41	42	1	5	JR Survey team	1998	
The Fridays (N)	Jason	FIG	TD23	13	2	2	JR Survey team	1997	TB plentiful
The Fridays (S)	Jason	FIG	TD23	8	2	2	JR Survey team	1997	
The Twins (N)	Carcass	FC	TD41	8	3	1	JR Survey teams	1997, 2006	
The Twins (S)	Carcass	FC	TD41	15	3	1	JR Survey teams	1997, 2006	Many
Tiny	Barren	May	UB19	6	3	1	JR Survey team	1998	Fledged young
Triste	Motley Point	FLH	UC82	155	1	5	JR Survey team	1998	
Tussac Islet	Arch	FIG	TC60	18	1	5	JR Survey team	1998	
Wall (East)	Choiseul Sound	FLH	UC74	1.5	1	2	D Brown & R Woods	18/09/2008	Sea lion faeces; no rat sign, no CW
Wall (West)	Choiseul Sound	FLH	UC74	1.5	1	2	D Brown & R Woods	18/09/2008	Sea lion faeces; no rat sign, no CW
Weddell	Weddell	Strachan Visick	TC24,34,35	21850	1	5	D Broughton & R Woods	2000	Patagonian foxes numerous
West Point settlement	West Point	Napier	TD40	1255	4	5	R Napier & R Woods	From 1950s ongoing	Mice also present; CW occasional in autumn; feral cats eradicated 1984
Whig (North)	Choiseul Sound	FLH	UC74	9	3	1	D Brown & R Woods	18/09/2008	Cow skull;
Whig (South)	Choiseul Sound	FLH	UC74	12	3	1	D Brown & R Woods	18/09/2008	Possibly burnt in past?
Whisky	Sea Lion	ART	UB68	13	3	1	JR Survey team	1997	Many, fledged young
Wreck (largest of 5)	Sedge	Hawksworth	TD72	5	1	2	JR Survey team	1997	

8.2 Workshop

Cobb's wren Species Action Plan Workshop

The workshop will be held in the Chamber of Commerce and lunch will be provided at the end of the workshop on Monday 8th September 2008.

Sunday 7th September 2:00 – 5:00 pm

Species assessment

1. Taxonomy
2. Global distribution/Population status
3. Ecology and Habitat Requirements
4. Movements, including response of land birds to rat cleared islands
5. Diet
6. Biology
7. Legal and Protection Status

Species value

Threatening processes

Current management actions

Factors influencing/limiting an action plan

Monday 8th September 8:30am – 12:00 midday

Action Plan

1. Vision
2. Objectives
3. Action tasks, assigned priority level, timings and responsibilities

National Priorities

The following background material has been supplied
- *Species Assessment and list of islands by Robin Woods*
- *Bird re-introductions conference report by Ann Brown*

Attendees

Name	Organisation
Birmingham, John	Councillor
Brown, Derek	New Zealand habitat restoration expert
Carey, Peter	SubAntarctic Foundation for Ecosystem Research, landowner
Christie, Darren	South Georgia Government
Cotter, Gilly	Local University biology student
Crofts, Sarah	Falklands Conservation
Hilton, Geoff	Royal Society for the Protection of Birds
Miller, Clare	South Atlantic Invasive Species Programme
Morrison, Mike	Local naturalist
Munro, Grant	Falklands Conservation
Otley, Helen	Environmental Planning Department
Poncet, Sally	Landowner
Spruce, Joan	Landowner
St Clair, James	PhD student, University of Bath
Summers, Brian	South Atlantic Invasive Species Programme
Woods, Robin	Ornithologist, Falklands Conservation

Other people invited but unable to attend

Name	Organisation
Anderson, Eddie	Landowner
Calvert, Pip	Landowner
Donnelly, Danny	Landowner
Evans, Raymond	Land manager
Falkland Islands Company	Landowner
Falkland Islands Development Corporation	Landowner
Falklands Land Holdings	Landowner
Jaffray, Alex	Landowner
Marsh, Ali	Landowner
May, Chris	Landowner
McGill, Rob and Lorraine	Landowner
Napier, Roddy and Lilly	Landowner
Pütz, Klemens	Antarctic Research Trust, Landowner
Rendell, Mike & Phyl	Landowner
Strange, Ian	New Island Conservation Trust, Landowner