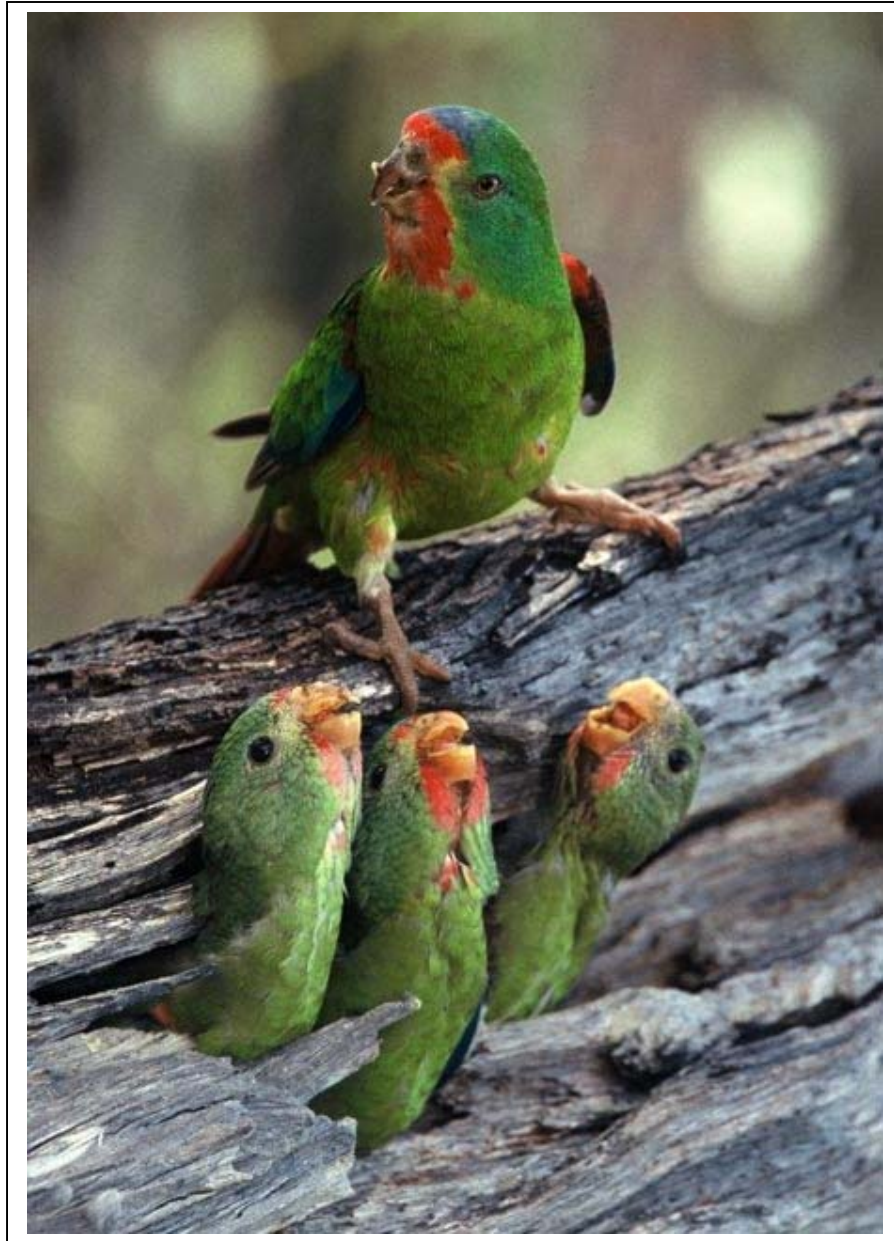


The Swift Parrot in Tasmania: its Conservation Status and the Impact of Logging on its Breeding Habitat



Margaret Blakers and Isobel Crawford, October 2008
Report prepared for Senator Bob Brown, Australian Greens

Postscript

On 14 October 2008, Forestry Tasmania announced that they, the Forest Practices Authority and the Threatened Species Section would jointly conduct further surveys of Swift Parrots at Wielangta to 'help inform an on sight (sic) parrot plan for the area'. The three are also working cooperatively towards a 'strategic plan to manage the habitat of the swift parrot in Tasmania'.

Unless the strategic plan is scientifically based, and unless logging is halted until the plan is completed, not just in Wielangta coupe 19D but in all coupes containing foraging and nesting habitat for the Swift Parrot, it will not meet the Regional Forest Agreement requirement that Tasmania's forest management system should be designed to protect the Swift Parrot.

This report describes how the endangered Swift Parrot is being driven towards extinction by logging in the Tasmanian forests where it breeds. It is likely that other, less well documented, species and communities are similarly threatened.

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We thank all those who contributed to the preparation of this report

Cover photo. Swift Parrots by David James

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The Swift Parrot in Tasmania: Its Conservation Status and the Impact of Logging on its Breeding Habitat

Findings

Finding 1. The Swift Parrot population has been assumed to be at best stable at 1000 breeding pairs but new evidence suggests a substantial decline since 2003.

Finding 2. To breed, Swift Parrots need foraging habitat containing abundantly flowering Tasmanian blue gum and/or black gum close to extensive areas of hollow-rich mature eucalypt forest that provides nesting sites. Swift Parrots re-use forests every few years, depending on the flowering intensity of Tasmanian blue gum and/or black gum.

Finding 3. Clearing has greatly reduced the area of forest available for foraging and nesting within the south-east Tasmanian breeding range of the Swift Parrot.

Finding 4. Logging degrades nesting habitat by fragmenting mature forests and removing old hollow-bearing trees, which take at least 100 years to replace. It also carries the risk of destroying breeding adults and chicks if they are not detected before logging begins, possibly in numbers great enough to impact on the survival of the population as a whole.

Finding 5. The Swift Parrot is likely to be disadvantaged by climate change because it has a small population, is a specialist feeder and nester, and is vulnerable to disruption of its migratory pattern.

Finding 6. Potential and actual Swift Parrot foraging and nesting habitat is being logged at a rate of over 1000 hectares per annum.

Finding 7. There is no strategic or landscape-scale plan to protect Swift Parrot nesting and foraging habitat in forests available for logging.

Finding 8. Management prescriptions to protect Swift Parrot breeding habitat during forestry operations are out of date and do not reflect the best available science.

Finding 9. There is a high likelihood that Swift Parrot foraging and nesting habitat will be missed or incorrectly mapped by Forest Practices Officers when they prepare Forest Practices Plans.

Finding 10. Expert recommendations to protect Swift Parrot breeding habitat may be ignored or weakened if Forestry Tasmania objects.

Finding 11. Active nests were almost certainly destroyed by logging on South Bruny Island in 2006, and it is highly likely that others were destroyed in spring 2007 where breeding aggregations and logging coincided in southern Tasmania.

Finding 12. Tasmania's forest management system is not designed to protect the Swift Parrot and is systematically failing to do so.

Finding 13. The draft National Swift Parrot Recovery Plan for the period 2006-2010 has not yet been put on public exhibition and, in spring 2008, funding ceased for Swift Parrot breeding research, Recovery Team coordination and long-term winter mainland population monitoring surveys.

Finding 14. Evidence strongly suggests that the Swift Parrot should be reclassified as 'critically endangered' because it is suspected to have undergone or is likely to undergo in the immediate future a very severe reduction in numbers.

Finding 15. Immediate action is needed, in October 2008, to prevent further logging damage to breeding habitat and potential destruction of breeding birds, eggs and chicks.

Finding 16. Tasmania's failure to protect the endangered Swift Parrot breaches the RFA and renders forestry operations potentially in breach of the EPBC Act. The Commonwealth has the power and the responsibility to notify a dispute with Tasmania and, if it is not resolved expeditiously, to give notice that the RFA will be terminated making threatened species protection the direct responsibility of the Environment Minister.

Recommendations

Recommendation 1. The principal recommendation is that the logging or clearing of coupes containing breeding habitat (foraging or nesting) of the Swift Parrot in Tasmania should be halted immediately and that all such forests should be protected until landscape-scale management strategies are in place to secure the species' long term future.

Recommendation 2. If the Tasmanian authorities fail to act on recommendation 1 before the end of October 2008, the Prime Minister should notify the Tasmanian government, under the Regional Forest Agreement, that there is a dispute relating to the Swift Parrot, and that the RFA will be terminated if it is not resolved, bringing protection of Tasmanian endangered species under the direct control of the Federal Environment Minister.

Recommendation 3. Two full-time biologists should be funded immediately to resume research on the breeding ecology of the Swift Parrot and to establish an effective population monitoring program in Tasmania commencing this breeding season. The longer-term research program should be funded to underpin the preparation of Tasmanian landscape-scale management strategies for the species.

Recommendation 4. Funds should be allocated to enable continued employment of a coordinator for the National Swift Parrot Recovery Team, to increase the participation of volunteers in long term monitoring surveys, to conduct research on linking different phases of the migratory cycle and to ensure the draft recovery plan is finalised and approved as a matter of urgency.

Recommendation 5. A nomination should be prepared to reclassify the Swift Parrot as 'critically endangered' under the Commonwealth Environment Protection and Biodiversity Conservation Act.

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Names, abbreviations and acronyms

Eucalypt names

Recommended common names are used for eucalypts (Wapstra *et al.* 2008) (Table 1), except where cited authors have used an alternative, or the scientific name. Swamp gum is an alternative name for black gum. Common names are not capitalised, as recommended by Wapstra *et al.* (2008). Scientific names follow Buchanan (2005).

Table 1. Eucalypt names

common name	scientific name
black gum	<i>Eucalyptus ovata</i>
black peppermint	<i>Eucalyptus amygdalina</i>
cabbage gum	<i>Eucalyptus pauciflora</i> ssp. <i>pauciflora</i>
giant ash	<i>Eucalyptus regnans</i>
gumtopped stringybark	<i>Eucalyptus delegatensis</i> ssp. <i>tasmaniensis</i>
mountain white gum	<i>Eucalyptus dalrympleana</i> ssp. <i>dalrympleana</i>
stringybark	<i>Eucalyptus obliqua</i>
Tasmanian blue gum	<i>Eucalyptus globulus</i> ssp. <i>globulus</i>
western peppermint	<i>Eucalyptus nitida</i>
white gum	<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>
white peppermint	<i>Eucalyptus pulchella</i>

Abbreviations and acronyms

dbh, dbhob	diameter at breast height, diameter at breast height over bark
DECC	Department of Environment and Climate Change, NSW.
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cwlth)
FOI	Freedom of Information
FPA	Forest Practices Authority (formerly Board): administers the forest practices system, which regulates forestry in Tasmania. Chief Forest Practices Officer is Mr Graham Wilkinson.
FPO	Forest Practices Officers are delegated by the FPA to certify Forest Practices Plans on its behalf for Forestry Tasmania or a forestry company.
FPP	Forest Practices Plan: must be in accordance with the Forest Practices Code, and logging must follow the FPP.
FT	Forestry Tasmania
TFM	Threatened Fauna Manual
TSS	Threatened Species Section of Department of Primary Industries and Water (formerly and Environment)
WHC	Wildlife Habitat Clump

1. Introduction

1.1 The Swift Parrot

The Swift Parrot is a small, slender, green parrot with a long, pointed reddish-brown tail, red forehead, throat and shoulder (Taylor & Day 2006). It is migratory, feeds principally on eucalypt nectar, and is a swift erratic flier. It breeds only in Tasmania, feeding mainly in Tasmanian blue gum or black gum while breeding, and nesting nearby in hollows in mature eucalypt forest. In autumn, the population migrates to the mainland, where it roams widely in search of food. In spring the birds return to Tasmania to breed.

1.2 Aims and scope

The aims of this paper are to review:

- i) the conservation status of Swift Parrot, and
- ii) the impact of logging on its breeding habitat in Tasmania, and on the survival of the species.

To do this, we summarise the Swift Parrot's conservation status and estimated population, and review its movements, distribution, and breeding habitat in Tasmania. We discuss the main threats, in particular the impacts of logging on breeding habitat and on the species, and recommend measures to protect the Swift Parrot and its breeding habitat in the immediate and longer term. This report focuses on the Swift Parrot population when it is breeding in Tasmania, and refers only occasionally to its over-wintering on the mainland.

A summary of some of the relevant Tasmanian legislation is provided (Appendix 1).

2. Current conservation status

2.1 Legal and scientific conservation status

Conservation status is determined by assessing population size and trend, and the threats to a species. The Swift Parrot population is small, usually estimated to be 2000 mature adults (range 250-2500) or 1000 breeding pairs, and probably declining (Table 3). Threats to the species are increasing in number and intensity. On this basis the Swift Parrot is legally listed as endangered, both nationally and in Tasmania (Table 2). It is listed as a priority species under the Tasmanian *Regional Forest Agreement* (Commonwealth of Australia and State of Tasmania 1997) (Appendix 1). It is also on scientific lists as endangered, both nationally and internationally, because of its small population and continuing threats (Garnett & Crowley 2000, International Union for Conservation of Nature 2004).

Two of the principal vegetation communities used by breeding Swift Parrots for foraging are also listed as threatened in Tasmania: *Eucalyptus globulus* dry forest and woodland as vulnerable, and *Eucalyptus ovata* forest and woodland as endangered (Nature Conservation Act 2002).

Table 2. Legal conservation status of the Swift Parrot

jurisdiction	conservation status	legislation
Australia	endangered	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ACT	vulnerable	Nature Conservation Act 1980
NSW	endangered	<i>Threatened Species Conservation Act 1995</i>
Queensland	endangered	<i>Nature Conservation Act 1992</i>
South Australia	vulnerable	<i>National Parks and Wildlife Act 1972</i>
Tasmania	endangered	<i>Threatened Species Protection Act 1995</i>
Victoria	threatened	<i>Flora and Fauna Guarantee Act 1988</i>

2.2 Population estimates

In the late 1830s Gould (1865) observed that the Swift Parrot was ‘not only abundant in all the gum-forests of Tasmania, but ... very common in the shrubberies and gardens at Hobart Town. It is frequently to be seen on the gum-trees bordering the streets, within a few feet of the heads of the passing inhabitants ...’. Later anecdotal evidence suggested a decline in numbers: by 1917, Mathews (1917) considered the Swift Parrot ‘exceedingly rare in New South Wales and more common, though by no means now as plentiful as formerly, in Tasmania’. Green (pers. comm. in Brown 1989) ‘was sure that’ Swift Parrots had become less abundant in the Launceston area since the late 1960s.

Concern about its conservation status and lack of knowledge of its ecology led to surveys in Tasmania in 1987-88 by Brown (1989) who estimated a population of 1320 pairs, lower than expected (Table 3). The 1995-96 census by Plowman (1996 in Brereton 1997) estimated 940 pairs, but Forshaw (2002) cautioned against construing this as representing a real decline, ‘for it is likely that numbers ... vary from year to year ... with changing conditions, especially the seasonal fluctuations in the flowering of blue gums’.

Monitoring of population density at 65 permanent plots from 1999-2000 in Tasmanian blue gum forest suggested that the population was then ‘at best stable at 1000 pairs’ (Swift Parrot Recovery Team 2001), and this is the figure presently cited (e.g. Department of Environment, Water, Heritage and the Arts 2008).

Webb (2008) noted that the breeding population ‘has so far proven very challenging to monitor’, because its breeding sites are used intermittently. The assumption that the birds principally use dry forests for breeding may also have distorted where and how censusing has been done.

Table 3. Swift Parrot population estimates

breeding season	location	population estimate	source
1987/88	Tasmania	1320 pairs	Brown (1989)
1995/96	Tasmania	940 pairs	Plowman (1996) in Brereton (1997)
1997/98	north-west Tasmania	1000 adults 150 juveniles	Mallick <i>et al.</i> (2004) 'up to half of the total estimated population'
-	-	2000 adults (range 250-2500) declining	Garnett & Crowley (2000)
1999/2000	eastern Tasmania	1000 pairs	Swift Parrot Recovery Team (2001)

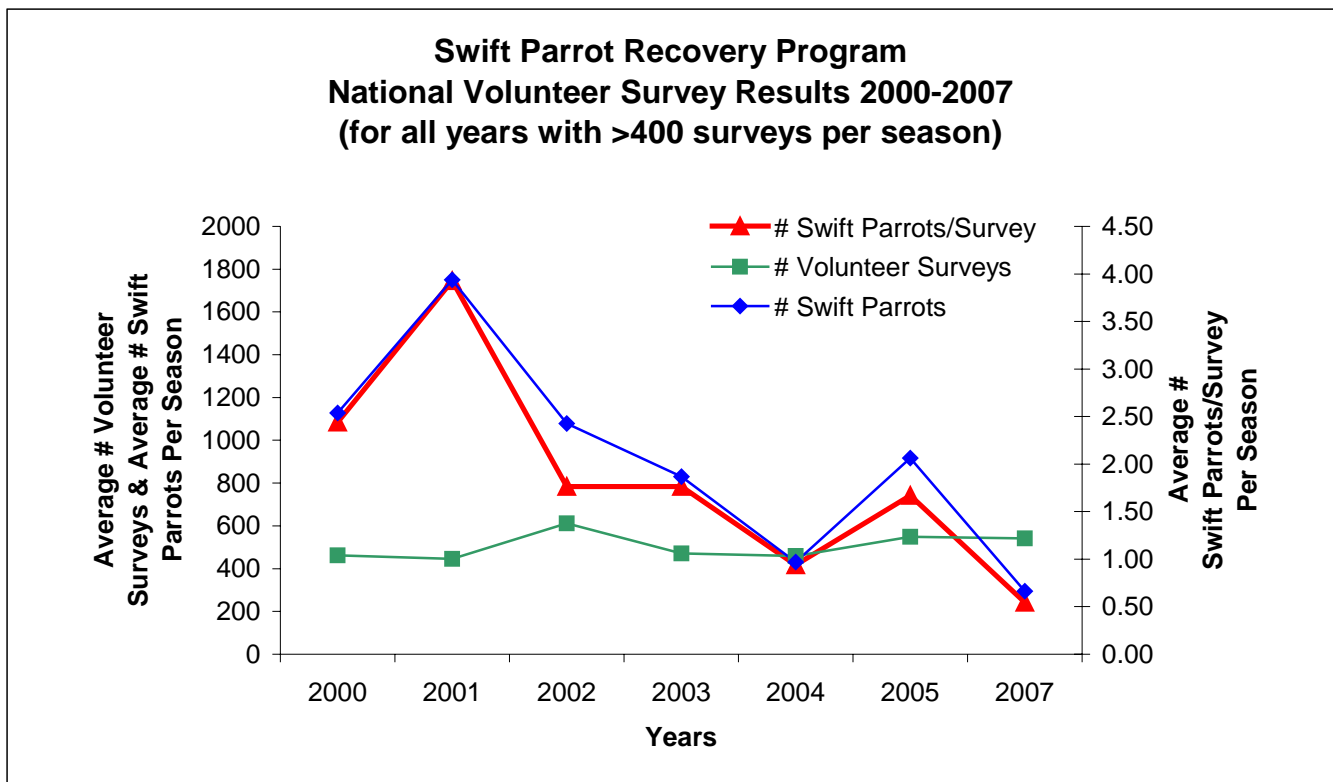


Figure 1. Data from the National Swift Parrot Recovery Program Database (National Swift Parrot Recovery Team 2008).

On the mainland, winter counts have been conducted annually since 1995 using volunteers coordinated by the Swift Parrot Recovery Team. Between 2000 and 2007, adjusting for survey effort, the number of Swift Parrots reported per survey form declined significantly from an average of 2.4 between 2000 and 2003, to 1.06 between 2004 and 2007 (Figure 1).¹ The count in 2007 is the lowest ever recorded with only 0.55 Swift Parrots reported per survey form.

The winter counts provide the best available evidence of current population trends and suggest that numbers may be declining dramatically. It is imperative that the counts continue in future seasons.

Finding 1. The Swift Parrot population has been assumed to be at best stable at 1000 breeding pairs but new evidence suggests a substantial decline since 2003.

3. The Swift Parrot in Tasmania

3.1 Movements and distribution

The Swift Parrot is a migratory species which breeds in Tasmania from September to January. From mid-December birds disperse to the north and north-west of the state. Most of the population leaves for the south-eastern mainland from as early as January to as late as May (Hindwood & Sharland 1964; Higgins 1999).

Breeding occurs principally within the natural distribution of Tasmanian blue gum in south-eastern Tasmania (Brown 1989), from St Helens south to Lune River, including the Tasman and Forestier Peninsulas, and Bruny and Maria Islands, but with greater densities between Orford and Cape Bernier, (*i.e.* west of Maria Island), and in the Wellington Range near Hobart (Higgins 1999). Forshaw (2002) extended the southern limit slightly to Southport Lagoon.

The south-east breeding range is mostly within 10 km of the coast, but occasionally as far inland as 20 km. It occupies an area of less than 500 square kilometres (Higgins 1999; Swift Parrot Recovery Team 2001).

Small numbers of Swift Parrots breed in northern Tasmania, east from Smithton to Launceston (Brereton 1997, Mallick *et al.* 2004), in particular between Penguin and Sheffield and from Legana to Launceston (Brown 1989).

3.2 Breeding habitat and behaviour

Swift Parrots are gregarious: they roost communally and nest in loose colonies or aggregations (Higgins 1999). They feed mostly within 1 km of their nest site, but may range up to 9 km (Brereton 1997).

¹ Only years with a consistent effort of more than 400 surveys per season are included. Years before 2000 (216 surveys) and the year 2006 had fewer than 400 surveys and the counts are omitted.

Descriptions of the vegetation used by breeding Swift Parrots are summarised (Table 4). The first three limit the vegetation used to formally named vegetation communities. This understates the range of vegetation types which are important to the species, because Tasmanian blue gum, black gum and other species important to the species all occur extensively as sub-dominant trees in vegetation communities which therefore do not bear their name.

The second three more recent descriptions of Swift Parrot habitat requirements therefore list the tree species used rather than the vegetation communities in which the trees occur. This has implications for the species' conservation. If suitable Swift Parrot habitat cannot be delineated by the mapping of vegetation communities, it will be difficult if not impossible to estimate its extent, quality or reservation status without well-designed dedicated surveys.

Table 4. Vegetation used by Swift Parrots in the breeding season

	foraging	nesting
Brereton (1997)	Shrubby <i>E. globulus</i> - <i>E. obliqua</i> forest; grassy <i>E. globulus</i> forest; Remnant <i>E. globulus</i> trees in pasture land; Shrubby <i>E. obliqua</i> - <i>E. ovata</i> forest and grassy <i>Eucalyptus ovata</i> forest	Grassy <i>E. obliqua</i> - <i>E. ovata</i> forest; Shrubby <i>E. obliqua</i> forest; Less often grassy <i>E. globulus</i> forest
Swift Parrot Recovery Team (2001)	Grassy <i>E. globulus</i> forest in the south-east, and Grassy/shrubby <i>E. ovata</i> forest throughout Tasmania	Old growth forest: <i>E. obliqua</i> dry forest <i>E. pulchella</i> grassy/shrubby dry sclerophyll forest Grassy <i>E. globulus</i> forest in the south-east, and <i>E. obliqua</i> dry forest in the north-west.
Forest Practices Authority (2008a)	Grassy <i>E. globulus</i> forest or shrubby <i>E. ovata</i> woodland [forest	Shrubby <i>E. obliqua</i> or <i>E. delegatensis</i> forest
DECC (2006)	Tasmanian Blue Gum dominated forest; Black Gum dominated forest; Forest types where Blue Gum occurs as sub-dominant; Forest types where Black Gum occurs as sub-dominant.	Hollow-bearing Tasmanian Blue Gum forest (wet and dry), Stringybark forest (wet and dry), White Peppermint dry forest, Gum-topped Stringybark dry forest, Black Peppermint dry forest, among others.

² *Threatened Fauna Manual* now *Fauna Values Database* of Forest Practices Authority, provided to public.

Voogdt (2006)		Any eucalypt species with suitable hollows
Webb (2008)		Also wetter eucalypt forests dominated by <i>E. regnans</i> , <i>E. delegatensis</i> , <i>E. obliqua</i> , <i>E. globulus</i> or <i>E. ovata</i> , with understorey ranging from those typical of dry forest to rainforest

3.2.1. Foraging habitat

Swift Parrots are primarily nectar eaters. Breeding coincides with the flowering of their principal food plants, Tasmanian blue gum and black gum (Gould 1865; Brereton 1997; Webb 2008). In the 1987-88 breeding season, when Tasmanian blue gum flowered profusely, Brown (1989) recorded that 78% of feeding observations were on nectar of this species, 13% on black gum nectar and 4% on psyllids. He listed 11 eucalypt species used by Swift Parrots in Tasmania, and noted that more psyllids are eaten when nectar is less or not available, and before laying to provide protein. Swift Parrots also eat seeds of eucalypts and grasses, fruits, and small insect larvae (Hindwood & Sharland 1963; Barker & Vestjens 1989; Higgins 1999; Forshaw 2002).

Black gum flowers earlier than Tasmanian blue gum and so Shrubby Black Gum forest is used early in the breeding season, and when flowering of Tasmanian blue gum is poor (Brown 1989). Swift Parrots select larger Tasmanian blue gums for foraging, and these larger trees flower more 'intensely' than smaller ones (Brereton *et al.* 2004). Tasmanian blue gum and black gum do not flower intensely every year, and therefore may support breeding in as few as three years in ten (Garnett & Crowley 2000).

In north-western Tasmania, Mallick *et al.* (2004) recorded no breeding season foraging on black gum whereas Brown (1989) had described it as the most important naturally occurring food plant in this region. Planted Tasmanian blue gums in parks, gardens and plantations in the north-west, outside the species' natural distribution, provide a dispersed nectar source which enables a small number of birds to breed (Mallick *et al.* 2004).

When Swift Parrots disperse after breeding, they forage mainly in wetter forests (Swift Parrot Recovery Team 2001) on eucalypts such as stringybark, gum-topped stringybark, white gum, mountain white gum and cabbage gum (Higgins 1999) and western peppermint. As almost no work has been done on post-breeding habitat use, this is a weak point in our knowledge of the species.

3.2.2 Nesting habitat

Swift Parrots nest in hollows in dead limbs or holes in old or dead eucalypts (Higgins 1999). Brereton (1997) reported that the most frequently used species were stringybark, white peppermint and Tasmanian blue gum and occasionally black peppermint, white gum and black gum. However more recently Voogdt (2006) found that the presence of multiple hollows (>4) is a more important nest tree characteristic than the species.

Swift Parrots rarely nest in trees of less than 70 cm diameter at breast height above bark (Brereton 1997). In their 2003-06 survey of nests and nest sites, Webb *et al.* (2007) recorded Swift Parrot nests in large trees (mean diameter at breast height = 100 cm, range 33-202 cm) with five or more potential hollows (mean = 8.6, range 2-22) and showing clear signs of senescence. Brereton (1997) reported that nest hollows tended to face north in nest trees on northerly to easterly slopes but later work has not confirmed this.

Nests can be difficult to find because the hollows are often high and have small entrances. Brereton (1997) recorded an average nest height above ground of 15 m (range 6-35 m) and hole diameter of 10 cm (range 4-20 cm). Brown (1989) recorded an average nest height above ground of 25 m (range 7-28 m).

Breeding occurs mainly in large (>100 ha) patches of mature eucalypt forest (Brereton 1997, Webb *et al.* 2007). Brereton (1997) found that nest sites tended to be on drier slopes and ridges. Dry forest at Wielangta was regarded by Brown as 'some of the finest Swift Parrot breeding habitat' that he had seen (Wielangta transcript, p-253). Higgins (1999) referred to use of wetter forests 'sometimes' and in 2007 Webb (2008) recorded the majority of the breeding population in wetter forests south of Hobart, mainly between Huonville and Southport (only 13% of 383 observations were recorded elsewhere in the breeding range that season). All forests used had flowering Tasmanian blue gum and/or black gum and senescent eucalypts of any species.

Nest aggregations at three sites surveyed in 2004, 2005 and 2006 by Webb *et al.* (2007) were the largest ever reported, both in extent (c. 50-100 ha) and number of nests (26-49). Estimated nest densities ranged from 0.7-0.8 nests per hectare. Webb (2008) noted that because birds nest in aggregations, loss of or disturbance to a site can potentially affect a large number of birds.

3.2.3 Fidelity to nesting sites

Historical nest records indicate that Swift Parrots regularly return to nesting sites (Webb *et al.* 2007) but, during four years of monitoring in south-east Tasmania, Webb (2008) recorded few birds at previously known nest sites. He concluded, as had Brereton (1997), that breeding sites are used on a periodic basis, depending on the quality and quantity of flowering of Tasmanian blue gum and black gum nearby.

At Wielangta, breeding Swift Parrots were abundant in 2001 when Tasmanian blue gums were flowering heavily (Webb 2006). They probably nested there in 2004 and a large number of birds are again preparing to breed there in 2008 (wildwielangta.edublogs.org). In the intervening years, major breeding aggregations have been reported in the Mt Wellington foothills (2004), Maria Island (2004, 2005); North Bruny Island (2005, 2008); Meehan Range (2005); Tasman Peninsula (2006); South Bruny Island (2006, 2007); and the coastal forests south of Hobart between Southport and Huonville (2007).

Finding 2. To breed, Swift Parrots need foraging habitat containing abundantly flowering Tasmanian blue gum and/or black gum close to extensive areas of hollow-rich mature eucalypt forest that provides nesting sites. Swift Parrots re-use forests every few years, depending on the flowering intensity of Tasmanian blue gum and/or black gum.

4. Threats

Continuing destruction, fragmentation and alteration of the age-structure of foraging and nesting habitat, by forestry, agriculture and human settlement, are the principal threats to Swift Parrot (Brown 1989, Brereton 1997, Higgins 1999, Garnett & Crowley 2000, Department of Environment and Climate Change 2006a, *inter al.*).

Justice Marshall, in the Wielangta Forest case, found that most of the nesting and foraging habitat of the Swift Parrot lies outside dedicated reserves and that the species was not protected through the Comprehensive, Adequate and Representative (CAR) Reserve System. He noted the evidence of Peter Brown, which Mr Wapstra (Tasmanian Forest Practices Authority) accepted, that the CAR reserve system may assist in the survival of the parrot but is unlikely to assist in the recovery of this species in isolation³. In the absence of protection through reservation, the management of habitat on other public land, especially state forest, and on private land is critical.

This section reviews the general impacts of habitat destruction and degradation, climate change and other threats. Section 5 addresses the particular impact of current forest management practices on Swift Parrot breeding habitat.

4.1. Breeding habitat destruction and degradation

The critical habitats of the Swift Parrot in Tasmania are those used for foraging and nesting in the breeding season. Vegetation used for foraging during the post-breeding dispersal is not seen as threatened, but almost no work has been done on these habitats so much remains unknown.

4.1.1 Clearing

Brown (1989) was primarily concerned about loss of the Tasmanian blue gum feeding resource and the nearby nesting areas, and estimated ‘conservatively’ that ‘within the present range of the Swift Parrot ... no more than a third of the original *E. globulus* forest remains ... and it is continuing to diminish’. He noted that much of the coastal habitat had been developed and altered in some way, from St Helens south to Recherche Bay, and that the core habitat from Orford to Beam Creek was continuing to be heavily cut for woodchipping. He also noted that south of Hobart, the coastal blue gum belt is much narrower but that in the [obliqua] forests to the west there are pockets of blue gum as far south as Southport and Ida Bay; he considered their retention to be ‘very important’ to the Swift Parrot.

Brereton (1997) also concluded that the major threat was loss of breeding habitat, as Tasmanian blue gum forests continued to be fragmented and cleared for agriculture and urban and coastal subdivision, and forestry operations were altering the age structure of forests, by removing older trees that provide food and nest hollows. Brereton (1996 in Brereton 1997) found that ‘approximately 50% of the environmental domain of the Swift Parrot had been cleared’.

³ Wielangta judgment, para 263-276

Grassy Tasmanian blue gum forest, identified by the Swift Parrot Recovery Team (2001) as suitable foraging habitat, is largely cleared. The remaining 8000 ha are distributed in a narrow band down the east coast: 18% (1500 ha) is in reserves, most in Maria Island National Park, and most of the rest is on private land (7000 ha). Between 1996 and 2006/07, 400 ha of Grassy *E. globulus* forest were cleared from the D'Entrecasteaux and Freycinet regions, and 4 ha of Shrubby *E. ovata*-*E. viminalis* forest (Forest Practices Authority 2007).

Black gum has the vital role of substituting for *E. globulus* when the latter flowers poorly or not at all, as it may do seven years out of ten (Garnett & Crowley 2000). These forests have nearly all been cleared. Statewide, estimates of the proportion remaining are approximately 3% (Swift Parrot Recovery Team 2001) and less than 5% (North & Baker 2002 in Mallick *et al.* 2004).

It is important to note that both Tasmanian blue gum and black gum occur not only in the named communities (Table 4), but also as a sub-dominant tree in many other communities, where logging is a major threat. All forests containing these species are important foraging habitat, regardless of the vegetation community they occur in.

Finding 3. Clearing has greatly reduced the area of forest available for foraging and nesting within the south-east Tasmanian breeding range of the Swift Parrot.

4.2 Logging

Logging affects nesting habitat by removing old hollow-bearing trees, opening up the canopy so that the extensive areas of old growth forest preferred by the parrots are fragmented, and slowing or eliminating the recruitment of new hollow-bearing trees by converting the forest to younger age classes. It affects foraging habitat by removing old Tasmanian blue gum and black gum trees that flower more profusely than younger trees.

Loss of hollows is a major threat for hollow-dependent species (Gibbons & Lindenmayer 2000), and loss of hollow-bearing mature eucalypt forest is seen as critical for Swift Parrots (Webb *et al.* 2007). Munks *et al.* (2007) considered the conservation of *E. obliqua* dry forest to be especially important as this community has significantly more trees with potential hollows, and significantly more potential hollows, than either *E. delegatensis* dry forest and *E. pulchella*-*E. globulus*-*E. viminalis* grassy/shrubby dry forest.

As trees need to be at least 100 years old before they are likely to contain a hollow (Koch *et al.* 2008) and there are now fewer older trees in logged forests, Webb (*et al.* 2006) emphasised the need to introduce management practices to ensure the retention and availability of nest hollows for the decades and centuries ahead.

Because Swift Parrot nesting depends on the proximity of flowering Tasmanian blue gums and black gums, the birds use different sites from year to year, possibly not re-using an area for up to a decade. Breeding success will be lowered by the degradation or destruction of any of the hollow-rich forests that at some time provide suitable nesting habitat for a significant portion of the population.

Logging can also have a direct impact on the population by destroying breeding adults, eggs and chicks. Breeding aggregations of up to 50 nests (100 adults) may cover 50-100 hectares, about the same area as a logging coupe. If nesting birds are not found before logging begins, it is possible that

5% or more of the Swift Parrot population (adults and chicks) could be destroyed in a single forestry operation, sufficient to have a significant impact on the survival of the species.

Finding 4. Logging degrades nesting habitat by fragmenting mature forests and removing old hollow-bearing trees, which take at least 100 years to replace. It also carries the risk of destroying breeding adults and chicks if they are not detected before logging begins, possibly in numbers great enough to impact on the survival of the population as a whole.

4.3 Climate change

Because of Tasmania's more maritime climate, it is predicted that those parts used by Swift Parrots will experience more moderate climate change impacts to 2040 than the south-eastern mainland, and the south-eastern breeding range will be relatively unaffected by an increased intensity and frequency of fires. However, recent fires in a number of key Swift Parrot breeding areas highlight the vulnerability of the species to fire. Since 2005 four known breeding sites are known to have experienced destructive wildfires (Meehan Range, Wielangta, South Bruny and between St Mary's and the coast). It is also interesting to note that from November 1996 to October 2007, Swift Parrot breeding habitat in south-eastern Tasmania and along the northern coast had its lowest recorded rainfall of any 11-year period since records began (Bureau of Meteorology 2007).

The physical changes predicted for this area (higher temperatures and lower rainfall) can be expected to stress both eucalypts and the psyllid insects on which Swift Parrots largely depend for food. As well, higher temperatures are likely to increase chick deaths from overheating, especially if the loss of large, old trees forces the birds to use sub-optimal hollows (Saunders 2008).

The Swift Parrot is likely to be disadvantaged by climate change because it has a small population and is a specialist feeder, dependent on mature vegetation for both feeding and nesting (Mansergh & Bennett 1989; Olsen 2007). The synchronising of Swift Parrot arrival in the south-east with the flowering of Tasmanian blue gum and black gum, and the development of psyllid nymphs, could be broken and any disruption of this pattern would lessen the likelihood of successful breeding (Jenni & Kery 2003).

The stresses of climate change will interact with other threatening processes to magnify their impact (Chambers *et al.* 2005). For example, climate change may reduce the reproductive success of populations already fragmented by habitat removal, and so may further reduce their viability.

The existing long-term national volunteer surveys provide an excellent opportunity to obtain landscape-scale data to monitor the impacts of climate change on Swift Parrot.

Further detail is appended (Appendix 2).

Finding 5. The Swift Parrot is likely to be disadvantaged by climate change because it has a small population, is a specialist feeder and nester, and is vulnerable to disruption of its migratory pattern.

4.4 Other threats

Collisions with windows, wire-mesh fences and vehicles (Brereton 1997), competition for nest hollows from Common Starlings along forest edges (Brown 1989), predation by cats and possible illegal trapping (various authors in Higgins 1999) are significant mainly because the Swift Parrot population is small and probably declining. The 145 deaths recorded from 173 collisions since 1987 are the only figures available to quantify these threats (Holland 2008).

The introduced bumblebee *Bombus terrestris* has spread since 1992 over much of Tasmania (Tzaros 2003). Because it feeds on the nectar of native species, including Tasmanian blue gum and black gum (Hingston & McQuillan 1998), it may compete with and threaten the Swift Parrot (Threatened Species Scientific Committee 2006).

Psittacine Circoviral (beak and feather) Disease affecting endangered psittacine species was listed in 2001 as a threatening process nationally (EPBC Act 1999). It has been recorded in Swift Parrots and is especially pertinent to this gregarious species because it remains viable for many years in nest hollows and may therefore result in long-term contamination of nesting aggregations. Most parrot species with chronic PCD do not have antibody and die from the virus. The Swift Parrot has only one small population, which is probably declining, all factors which increase its vulnerability to a catastrophic epidemic (Department of the Environment, Water, Heritage and the Arts 2007).

5. The impact of logging in Tasmania

In the Wielangta Forest case, Justice Marshall found that forestry operations in Wielangta are likely, having regard to the endangered status of the Swift Parrot and all other threats to it, to have a significant impact on the swift parrot by reducing part of its prime nesting habitat.⁴ Birds Australia considers logging of its nesting habitat in Tasmania as the single greatest threat facing the Swift Parrot (Tzaros 2008). This section focuses on the impact of logging on public land in Tasmania, whilst noting that Swift Parrot habitat on private land is also being degraded by logging and clearing.

5.1. The Tasmanian forest practices system

Forestry in Tasmania is regulated principally via the *Forest Practices Act 1985* which established the *Forest Practices Authority*. This statutory body issues the *Forest Practices Code* (the Code) (Forest Practices Board 2000), a set of guidelines which become enforceable when mentioned in a *Forest Practices Plan* devised and certified by an authorised *Forest Practices Officer* or the Authority. The Act refers extensively to the Code and generates obligations to comply with it. The Code has not been revised since 2000.

According to the Forest Practices Authority: “The Tasmanian forest practices system is based on a co-regulatory approach, involving responsible self-management by the industry, with independent

⁴ Wielangta judgment, para 162

monitoring and enforcement by the Forest Practices Authority. Self-management is delivered by FPOs, who are employed within the industry to plan, supervise and monitor forest practices' (Forest Practices Authority 2008). On public land, FPOs are employees of Forestry Tasmania.

FPOs prepare and certify Forest Practices Plans. In preparing the plans, information on the habitat requirements of listed threatened species is obtained from the Forest Practices Authority's *Threatened Fauna Manual* (now *Fauna Value Database*). FPOs consult the Manual to determine whether habitat suitable for a threatened species is likely to be present in a coupe proposed for logging. If so, they refer to the *Threatened Fauna Adviser* to determine what management prescription to apply or whether specialist advice is needed from the Forest Practices Authority.

Forest Practices Authority staff advise on regulatory and technical matters, including requirements to protect the Swift Parrot and other species. The Forest Practices Authority is also responsible for monitoring forest practices to ensure that standards are met and claims that corrective action is taken where required and penalties imposed for serious breaches (FPA 2008b).

The following sections evaluate the process in relation to the Swift Parrot, using information obtained under freedom of information and from Forestry Tasmania's *Three Year Wood Production Plans* (see also Appendix 3).

5.2 Extent of logging

Nearly 4000 hectares of state forest within the breeding range of the Swift Parrot have either recently been logged or are scheduled for logging by June 2010. In Forestry Tasmania's most recently published *Three Year Wood Production Plan* (for 2007-08 to 2009-10), 90 coupes covering 3139 hectares are scheduled for logging (Forestry Tasmania 2007). Potential and actual Swift Parrot foraging and nesting habitat is being logged at a rate of over 1000 hectares per annum.

Known breeding habitat, outside Maria Island and the Hobart area, is concentrated in the Forest Blocks:⁵ South Bruny, Southport, Hopetoun, Kermandie and Franklin south of Hobart, and Wielangta to the north. Other Forest Blocks likely to support breeding have not been systematically surveyed.

Finding 6. Potential and actual Swift Parrot foraging and nesting habitat is being logged at a rate of over 1000 hectares per annum.

5.3 Strategic planning

Most of the Swift Parrot's breeding range was broadly identified by Brown (1989) and extended and confirmed by the Swift Parrot project officer employed between 2004 and 2008 (Webb, 2008). Despite the ready availability of information on distribution, foraging and nesting habitat, and the endangered status of the species, neither Forestry Tasmania nor the Forest Practices Authority has yet produced a plan to protect the Swift Parrot in a comprehensive fashion.

⁵ A Forest Block is an area of state forest, available for logging, named and subdivided into coupes. Coupe numbers identify the Forest Block by their initial letters, e.g. WT019D is coupe 19D in the Wielangta Forest Block.

In 2001 nesting aggregations were recorded at Wielangta, and a 'strategic plan' for future logging there was developed in 2002. However, an assessment in March 2006 concluded that 'new information on the species and an appraisal of current planning maps for the areas in question suggest the outcomes from this exercise did not translate into adequate protection for Swift Parrot nesting values' (Webb 2006). Coupe WTo19D has subsequently been scheduled for logging, despite containing known nest sites and high quality nesting and foraging habitat.⁶

In November 2005, the *Interagency Fauna Group* (including representatives from the Threatened Species Section, Forest Practices Authority and Forestry Tasmania) agreed that 'a refined model was needed that could better predict the likelihood of nesting habitat at the strategic/forest block level'. In February 2006, the Group agreed that a revision of the *Threatened Fauna Adviser* prescriptions for foraging habitat was 'warranted' and that there was an 'urgent' need to develop descriptions of high quality nesting habitat, develop management prescriptions and strategic management of nesting habitat.

In the southern forests, where nesting aggregations were recorded in 2007, a strategic management plan is 'currently' being developed (G. Wilkinson, correspondence, September 2008). This appears to be a negotiation rather than a science-based exercise: the planning group includes representatives from the Department of Primary Industry and Water, the Forest Practices Authority, Forestry Tasmania and Gunns Ltd (representing private forestry).

The current assessment approach of the Forest Practices Authority and the Threatened Species Section is 'case by case' to exclude field-mapped Swift Parrot nesting habitat from harvest (G. Wilkinson, correspondence, September 2008). 'Case by case' means coupe by coupe. Despite repeated evidence of shortcomings in planning and prescriptions, and agreement for at least three years that the need for landscape scale management is urgent, no plan has been implemented.

Finding 7. There is no strategic or landscape-scale plan to protect Swift Parrot nesting and foraging habitat in forests available for logging.

5.4 Management prescriptions

In the absence of a landscape-scale plan, the protection of Swift Parrot breeding habitat reverts to Forest Practices Plans for individual coupes. The ability to plan for, negotiate and manage approximately 30 coupes per annum logged in Swift Parrot breeding habitat generates a considerable workload and cost burden for Forest Practices Officers, the Forest Practices Authority and the Threatened Species Section. The FOI material includes correspondence arguing about who should pay for site visits and other work. The default, if specialist advice is not received in time, is for Forest Practices Plans to be certified so that logging can proceed.

The following sections outline the history of Swift Parrot prescriptions over the last four years.

5.4.1 Prescriptions 2004--2006

⁶ In October 2008, Forestry Tasmania advised that they were continuing to plan for coupe Wielangta 19D but that they 'will not commence harvesting during the 2008-09 breeding season for swift parrots'.

In 2004, the Threatened Species Section (TSS) of the then Department of Primary Industries, Water and the Environment employed a project officer to study the Swift Parrot. By 2005 it was already clear that a revision of the description of potential nesting habitat in the *Threatened Fauna Manual* was required (undated MS titled 'Conservation management of the Swift Parrot'). The *Threatened Fauna Manual* had last been updated in 2002. It is crucial that it remains up to date because it is the tool used by Forest Practices Officers to decide the prescriptions for proposed logging operations and whether specialist advice is needed.

In January 2006, after another breeding season's research, Mark Holdsworth (TSS) noted that: 'The information we have gathered this and the previous season have shown that the current version of the Swift Parrot habitat model is not a true representation of what is happening on the ground, particularly in relation to nesting...'. From February, an interim arrangement was introduced through which a larger proportion of coupes was required to be referred to the TSS for advice. Sally Bryant (TSS) wrote to Graham Wilkinson, Chief Forest Practices Officer: 'Until such time as we have new prescriptions in place I request that no logging is approved...for coupes identified through this interim process as having potentially significant values for the swift parrot'.

In April, following a meeting of the Inter-Agency Fauna Group, Richard Barnes, Senior Zoologist in the Forest Practices Authority, advised Graham Wilkinson of the proposal to implement a new interim approach: 'The implications are that wet *E. globulus* forest within 10 km (extending to 15 kms of the coast between Orford and Sorell) will be unharvestable, as is now the case with *E. ovata* forest (OV) and grassy *E. globulus* forest (GG)'.

Forest Practices Officers were advised to implement the new approach, effective COB 4 July 2006. That precipitated complaints from Amy Ware (Forestry Tasmania planner) about 'poor science'. Richard Barnes responded to Graham Wilkinson in September that he was 'convinced that we have not acted improperly or without ecological due cause'. But Wilkinson nevertheless rescinded the new approach:

'the extension of range boundary for the Swift Parrot to include coastal wet bluegum forest constitutes a significant change to previously endorsed management prescriptions. I therefore believe that we should review recent FPP advice and await formal advice from SAC and FPAC⁷ before implementing new prescriptions with respect to wet bluegum forest'.

Graham Wilkinson, 21 September 2006

The process for introducing new management prescriptions was to be 'expedited'. Meanwhile, planners were to be advised of the reversion to 'old' management arrangements, and there was still no requirement to look for nests and to consider seasonal variations in prescriptions.

5.4.2 Prescriptions 2006 to the present

From September 2006 to the present, the 'interim' prescriptions have remained in force. These are the prescriptions originally adopted in February 2006: every coupe with potential foraging and nesting habitat has to be referred to the FPA for advice on a case by case basis, rather than suitable habitat being automatically protected. The exception is grassy blue gum forest which is protected

⁷ Scientific Advisory Committee and Forest Practices Advisory Committee

as foraging habitat. Almost all remaining unreserved grassy blue gum forest is on private land, so its protection has little impact on Forestry Tasmania. Other foraging and nesting habitat is extensively distributed in state forest.

The *Fauna Values Database* (previously the *Threatened Fauna Manual*) defines ‘high quality’ Swift Parrot habitat as:

‘Breeding range (comprising foraging and nesting habitat) is within 15 km of the coastline (nearest coast including shores, bays, inlets or peninsulas). Foraging habitat all *Eucalyptus ovata*-*E. viminalis* shrubby forest (OV), grassy *E. globulus* forest (GG) and *E. globulus* wet forest floristic communities (subsumed into R) or any forest type with >10% *E. globulus* canopy cover. Nesting habitat: Eucalyptus trees present: 70 cm dbh with hollows present.’

Protection of nesting habitat has focused on protection of known nest sites, with a management prescription requiring a one hectare reserve around the nest tree. For this colonial nester, any harvesting of coupes based on this prescription would result in the loss of high quality breeding habitat. As Webb (2006) noted, the effective management of nesting habitat should consider areas of similar habitat surrounding known nest records as nesting sites, and sightings of juveniles during the core breeding period as nesting records.

Coupe by coupe decision-making is inherently biased against Swift Parrot conservation because extensive mature eucalypt forest becomes fragmented by piecemeal decisions. It also makes every coupe a battleground, subject to pressure, negotiation and potential error.

Furthermore, there is no mechanism or requirement for the expedient incorporation of new information into forest management practices.

The management prescriptions currently in force for protecting Swift Parrot breeding habitat are out of date and fail to take into account the results of scientific research from 2004 onwards, which has re-defined the habitat requirements of the species.

Finding 8. Management prescriptions to protect Swift Parrot breeding habitat during forestry operations are out of date and do not reflect the best available science.

5.5 Habitat identification in forest practices plans

The success of the threatened fauna notification process depends on FPOs knowing the requirements of all threatened species well enough to be able to recognise their habitat in the field (Munks and Taylor, 2000). If potential Swift Parrot foraging and nesting habitat is not identified by FPOs in the initial coupe planning stages, the Forest Practices Plan may be certified (often by the same FPO) without any further check. Many coupes within the breeding range of the Swift Parrot were not included in the documents provided under FOI, strongly suggesting that they were not identified as containing suitable habitat by FPOs. In addition, several notification forms insist that there is ‘no suitable habitat’ because the blue gum forest is wet or shrubby, not grassy (e.g. SO013C). In another case, forest mapped as ‘regrowth’ in fact contained hollow-bearing trees suitable for nesting (SB017B).

In Wielangta Forest, the FPO who certified the forest practices plan for coupe WT019E had not seen a 2001 report about the Swift Parrot breeding in the area, nor Forest Practices Authority advice to

exclude mapped areas of high Swift Parrot activity from logging.⁸ As a result, areas of that coupe identified as prime swift parrot breeding habitat were logged, reducing the relevant area's protection to a skyline constraint and five wildlife habitat clumps.⁹

Finding 9. There is a high likelihood that Swift Parrot foraging and nesting habitat will be missed or incorrectly mapped by Forest Practices Officers when they prepare forest practices plans.

5.6 Adoption of advice

The impression from the correspondence obtained under FOI is of a 'war of attrition' where the Threatened Species Section (TSS) tries to hold the line according to its assessment of the science, the Forest Practices Authority compromises, and Forestry Tasmania resists protection decisions and threatens species experts, for example with accusations of 'poor science' and potential compensation implications (Amy Ware, Forestry Tasmania Planning Coordinator, correspondence re coupe SO013C).

Justice Marshall gives an example from Wielangta where, in 2001, representatives of Forestry Tasmania, including Mr Miller, met with officers of Department of Primary Industries and Water to discuss the outcomes of a Swift Parrot survey. Areas of high Swift Parrot breeding activity, marked in green on a map, were to be excluded from harvesting operations. Mr Miller rejected the recommendation to add the newly identified breeding areas to the 'protected areas' saying:

*'I don't think we want to do this. Reasons being that if further studies are undertaken and other habitat is discovered, then it may emerge that some of these may be more important for reservation. Besides, I don't think we would want to reserve areas prior to any "Management agreement" process coming into being.'*¹⁰

There is also evidence of the Forest Practices Authority rejecting the advice of threatened species experts. The Threatened Species Section found that a substantial proportion of coupe HPO09B was high quality foraging habitat, and that also it contained older trees with hollows that were potential nesting habitat. They recommended that the coupe remain unharvested. The Forest Practices Authority rejected the recommendation: logging and plantation establishment were allowed providing wet globulus remained unharvested and hollow bearing trees were retained 'where possible'. Logging proceeded on part of the coupe and an additional area of 45 hectares, probably the balance of the coupe, is scheduled for logging in 2007/08 and 2008/09.

In a third case, forest recommended for permanent protection in 2006 is scheduled for logging in the current *Three Year Wood Production Plan* (SBO17B) (Forestry Tasmania 2007).

⁸ *Bob Brown v Forestry Tasmania* trial transcript p 2321

⁹ Wielangta judgment para 289

¹⁰ Wielangta judgment para 288

Justice Marshall concluded: ‘The practical effect of the evidence of Dr John Whittington, General Manager, Resource Management and Conservation Division of DPIW, is that recommendations from senior zoologists in accordance with the Adviser are negotiable, if Forestry Tasmania objects’.¹¹

Finding 10. Expert recommendations to protect Swift Parrot breeding habitat may be ignored or weakened if Forestry Tasmania objects.

5.7 Logging impacts

Swift Parrot nests are hard to detect. Recent research found that two hours of observation was insufficient to confirm the absence of nests with reasonable confidence (Webb 2008). The probability of detection is influenced by the stage of nesting, with greater numbers likely to be recorded if chicks have fledged. To eliminate the risk of destroying nests during logging, properly designed surveys should be carried out at the right time of the year, i.e. late October to December (Webb 2008), and during suitable weather. These surveys should be undertaken by suitably qualified and experienced people, as noted by Munks and Taylor (2000). Normal practice, under the Tasmanian forest practices system, does not require any pre-logging survey.

There is a documented example, on South Bruny Island in spring 2006, of the felling of hollow trees that almost certainly contained active nests, with the possible destruction of eggs, nestlings or even adults (coupe SBO17B). A pre-logging survey had been recommended but not carried out despite the presence of large numbers of Swift Parrots about 2 km from the coupe in early October. When the coupe was surveyed on 3 November, about half had already been logged. As well as the felled nest trees, two active nests were found on the unharvested portion, together with high Swift Parrot activity.

In spring 2007, most of the Swift Parrot population was concentrated in breeding sites south of Hobart, especially between Huonville and Southport, with good numbers also on South Bruny Island (Webb 2008). In 2007-08, in the same area, Forestry Tasmania had scheduled 27 coupes covering a total of 773 hectares for logging. In the absence of pre-logging surveys, it is highly likely that nests were destroyed without detection.

Finding 11. Active nests were almost certainly destroyed by logging on South Bruny Island in 2006, and it is highly likely that others were destroyed in spring 2007 where breeding aggregations and logging coincided in southern Tasmania.

5.8 Systemic failure

The Swift Parrot’s population is small and declining. The species’ survival depends entirely on protecting its breeding habitat in Tasmania and avoiding preventable deaths of breeding adults and chicks. Tasmania’s forest management system is not designed to achieve this.

A system designed for protection would identify and protect known nesting areas that have been repeatedly used by the Swift Parrot and areas that have supported large numbers of Swift Parrots in

¹¹ Wielangta judgment para 290

some seasons. It would take a precautionary approach to logging within the known breeding range, ensuring that habitat descriptions and recommended prescriptions were up to date and scientifically sound. Pre-logging surveys would be undertaken routinely by biologists familiar with the habitat requirements of the Swift Parrot at a suitable time of year.

Instead, there has been a three-year delay in preparing a strategic or landscape-level plan to protect critical breeding habitat. The species is vulnerable to multiple risks from coupe by coupe planning, ranging from failure to identify suitable habitat at the first step of the process, failure to follow expert advice, and approval of compromised prescriptions which are inadequate to protect the species. There is no mechanism to incorporate new scientific information into systems and processes in a timely manner. There is normally no requirement to survey for breeding birds before logging, creating the significant and particularly egregious risk that breeding adults and chicks will be destroyed, undetected, during logging.

Finding 12. Tasmania's forest management system is not designed to protect the Swift Parrot and is systematically failing to do so.

Wielangta coupe 19D – designed for destruction

An example of systemic failure by Tasmania's forest practices system

Wielangta coupe 19D is one of two coupes at the centre of the Wielangta Forest court case (*Brown v Forestry Tasmania*). Both were identified as Swift Parrot breeding habitat in 2001 and recommended for protection. Forestry Tasmania rejected the recommendation. Coupe 17E was logged in 2005.

The Forest Practices Plan for 19D was certified in 2005 with Swift Parrot prescriptions limited to incorporating habitat in wildlife habitat clumps. The Wielangta Forest case intervened and a survey in 2006 again identified that the coupe contained high quality nesting and foraging habitat. After the court case finished in May 2008, opening the way for logging to resume, the Forest Practices Plan was renewed in June 2008 for an additional two years. Despite the information accumulated in the intervening years, there was no change in the Swift Parrot prescriptions.

In September 2008, with logging about to begin, a community survey found Swift Parrots breeding in and around the coupe. Forestry Tasmania's response? To defer logging until the breeding season is finished but continue to undertake planning.

Forestry Tasmania claims to be working collaboratively with the Forest Practices Authority and the Department of Primary Industries and Water on a 'strategic assessment' of the Wielangta forests. Previous surveys and assessments in 2001, 2002 and 2006 have all failed to protect the known high quality breeding habitat in coupe 19D and in Wielangta Forest as a whole.

6. Research and recovery funding

From 2004 until 2008, a project officer was employed in Tasmania to investigate the breeding requirements of the Swift Parrot. The project was initiated by the National Swift Parrot Recovery Team with Natural Heritage Trust (NHT) funding from the Murray Catchment Management Authority, NSW (Webb 2008). Further NHT funding was provided through the Tasmanian Natural Resource Management Regional bodies, with additional funding from the Forest Practices Authority and Forestry Tasmania for the 2007-08 season. This project has added immensely to knowledge of the breeding ecology of the Swift Parrot. External funding for work in Tasmania ceased in September 2008 and the project officer has been assigned to other work. No Swift Parrot research is planned for the 2008-09 or future breeding seasons because neither the Tasmanian or the Commonwealth government is providing funding, despite the urgent need for a better understanding of this species' breeding biology and population trends.

Two *National Recovery Plans* were prepared, as required under the Environment Protection and Biodiversity Conservation Act (EPBC Act): Brereton (1996) and Swift Parrot Recovery Team (2001). The second expired in 2005 and its successor, the draft National Recovery Plan 2006-2010 is currently being reviewed by the relevant states before being released for public exhibition (Department of Environment and Climate Change 2006). The Recovery Team has continued to meet and work on achieving the aims of the draft plan, but there is no funding for this to continue.

The National Swift Parrot Recovery Team includes representatives of each relevant state government department, researchers and experts as well as community and non-government organizations. One of its major tasks has been to organise the annual winter population surveys which have revealed the alarming recent decline in sightings. A part-time co-ordinator manages the Recovery Team and the approval process for the recovery plan, and organises and reports on the surveys. Funding for this part-time position ceases in October 2008.

Finding 13. The draft National Swift Parrot Recovery Plan for the period 2006-2010 has not yet been put on public exhibition and, in spring 2008, funding ceased for Swift Parrot breeding research, Recovery Team coordination and long-term winter mainland population monitoring surveys.

7. Critically endangered

The aim of the Swift Parrot 2001-2005 recovery plan was to change the conservation status of the Swift Parrot from endangered to vulnerable within 10 years. The latest research and monitoring information suggests that, instead, there has been a significant deterioration.

The Swift Parrot is classified as endangered because of its small population and continuing threats. Until now, there has been no clear indication that the population is continuing to decline, but the unprecedentedly low winter counts from 2005–8 are cause for alarm. The decline is likely to be

caused primarily by logging of its breeding habitat in Tasmania, with additional pressure from climate change and drought throughout its range.

The evidence presented in this review of declining numbers and cumulative threats strongly suggests that the Swift Parrot should be reclassified as ‘critically endangered’. The number of birds reported per survey form in the winter count of 2007 was 23% of the average for 2000-2003. The result needs to be confirmed by continued surveys but is well within the range for a suspected ‘very severe’ reduction in numbers over 10 years or three generations, the indicative threshold for listing as critically endangered (Criterion 1 under the EPBC Act).

Finding 14. Evidence strongly suggests that the Swift Parrot should be reclassified as ‘critically endangered’ because it is suspected to have undergone or is likely to undergo in the immediate future a very severe reduction in numbers.

The intensive work and commitment of resources over the last decade to secure mainland foraging habitat of the Swift Parrot will have been wasted if its breeding habitat in Tasmania is further degraded or destroyed. Immediate action is needed, in October 2008, before breeding is in full-swing, to prevent further damage to breeding habitat and potential destruction of breeding birds.

Finding 15. Immediate action is needed, in October 2008, to prevent further logging damage to breeding habitat and potential destruction of breeding birds, eggs and chicks.

8. In breach of the Tasmanian Regional Forest Agreement

The Swift Parrot is listed as a priority species, requiring special consideration, under the Tasmanian Regional Forest Agreement (RFA). The basis of the RFA is the *National Forest Policy Statement*, a principal objective of which is the protection of nature conservation values in forests. More specifically it states that the protection of the full range of forest ecosystems...is fundamental to ecologically sustainable forest management. This entails ‘the conservation of biological diversity associated with forests (particularly endangered and vulnerable species and communities’ (Commonwealth of Australia 1995).

In the Wielangta Forest case, the Commonwealth argued that the International Biodiversity Convention creates two distinct obligations with respect to threatened species: an obligation to protect, and a separate obligation to restore degraded ecosystems and affirmatively to promote the recovery of threatened species.¹² In the case of the Swift Parrot, the distinction does not have to be made. There is no evidence of affirmative action for recovery in the application of the Tasmanian forest management system to the species. In fact, the system is failing to such an extent that the Swift Parrot is likely now to be critically endangered, not merely endangered.

¹² Bob Brown v Forestry Tasmania, Full Federal Court appeal, transcript page 180

Clause 68 of the RFA (as amended) defines the State's obligations with respect to priority species. Under the heading 'protection of priority species', it states that the Commonwealth and Tasmania agree that the:

'application of management strategies and management prescriptions developed under Tasmania's Forest Management Systems, protect rare and threatened fauna'.

The Commonwealth's view of the meaning of this clause was elaborated upon in the Wielangta Forest case:

FINKELSTEIN J: ... On every view you take of the meaning of the word "protect", what happens if tomorrow's system does not protect any of the rare species in the schedule? Do you say that clause 68 says well, who cares, the parties have agreed that they do in any event?

MR GAGELER: Well, what I say is that clause 68 does not provide for an outcome. It does not provide objectively that there must, in fact, be protection by some measure that is delivered by these systems. What it is, is an obligation not legally enforceable in clause 68, but subject to the sanction in clause 102, if there is a serious breach. It is an obligation to adhere to requirements that are designed in their very design, in the original design and as amended from time to time, are intended to deliver an outcome.

So you get to the measure of protection by adhering to the processes that are designed to achieve the measure of protection, and recognising that protection is an evaluative process and that the degree of protection is something which – upon which in some cases reasonable minds might differ as to the appropriateness. That is really what we are saying the original clause 68 said in one way and the amended clause 68 said in another.¹³

Furthermore, in relation to the exemption from the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* given to RFA forestry operations 'undertaken in accordance with an RFA':

FINKELSTEIN J: If a State doesn't satisfy its obligations under an RFA by having these things in place, then you can't be doing it in accordance with an RFA, because an RFA has certain requirements imposed on a State.

MR GAGELER: Yes, that is right.

FINKELSTEIN J: So as long as the State does what it is meant to do by putting the systems in place, or the rules and regulations in place, and then as long as the operator does what those systems require him to do, then it is in accordance with an RFA.

MR GAGELER: That is what I am attempting to say, yes. That is the point, your Honour.¹⁴

We consider that the systemic failure of the Tasmanian Forest Management System to protect the Swift Parrot, or to be designed for that purpose, is a clear breach of RFA clause 68. That in turn means that forestry operations undertaken in accordance with Tasmania's flawed procedures and

¹³ Bob Brown v Forestry Tasmania, Full Federal Court appeal, transcript page 404

¹⁴ Ibid, page 192

prescriptions for Swift Parrots are not in accordance with the RFA. Any such operation that has or is likely to have a significant impact on the Swift Parrot is potentially a controlled action, requiring approval by the Commonwealth Environment Minister under Part 9 of the EPBC Act.

RFA clause 11 provides for the Commonwealth to notify a dispute with the state of Tasmania under RFA. Within 7 days of a notice under clause 11 being served, the Commonwealth and the State must attempt to settle the dispute. If it is not resolved, the Commonwealth can move to terminate the RFA under Clause 102(c) on the grounds that there has been a 'fundamental failure by the State to comply with the spirit of the Agreement'. This would result in the Federal Environment Minister resuming responsibility for threatened species protection in Tasmanian forests.

Finding 16. Tasmania's failure to protect the endangered Swift Parrot breaches the RFA and renders forestry operations potentially in breach of the EPBC Act. The Commonwealth has the power and the responsibility to notify a dispute with Tasmania and, if it is not resolved expeditiously, to give notice that the RFA will be terminated making threatened species protection the direct responsibility of the Environment Minister.

9. Recommendations

Recommendation 1

The principal recommendation is that the logging or clearing of coupes containing breeding habitat (foraging or nesting) of the Swift Parrot in Tasmania should be halted immediately and that all such forests should be protected until landscape-scale management strategies are in place to secure the species' long term future.

Note. The Tasmanian Premier can implement this action, as can the Forest Practices Authority.

Recommendation 2

If the Tasmanian authorities fail to act on recommendation 1 before the end of October 2008, the Prime Minister should notify the Tasmanian government, under the Regional Forest Agreement, that there is a dispute relating to the Swift Parrot, and that the RFA will be terminated if it is not resolved, bringing protection of Tasmanian endangered species under the direct control of the federal Environment Minister.

Recommendation 3

Two full-time biologists should be funded immediately to resume research on the breeding ecology of the Swift Parrot and to establish an effective population monitoring program in Tasmania commencing this breeding season. The longer-term research program should be funded to underpin the preparation of Tasmanian landscape-scale management strategies for the species.

Recommendation 4

Funds should be allocated to enable continued employment of a coordinator for the National Swift Parrot Recovery Team, to increase the participation of volunteers in long term monitoring surveys, to conduct research on linking different phases of the migratory cycle and to ensure the draft recovery plan is finalised and approved as a matter of urgency.

Recommendation 5

A nomination should be prepared to reclassify the Swift Parrot as 'critically endangered' under the Commonwealth Environment Protection and Biodiversity Conservation Act.

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Appendix 1. Legislation and agreements

The principal legislation and agreements pertinent to forestry on public land in Tasmania are:

- i. *Forest Practices Act 1985*: created the Forest Practices Board which issues the *Forest Practices Code*, a set of guidelines for both public and private forestry. The Code's guidelines become enforceable when mentioned in a *Forest Practices Plan* devised and certified by an authorised Forest Practices Officer (FPO) or the Board. The Forest Practices Act makes extensive reference to the Code and generates obligations to comply with it.
- ii. *Threatened Species Protection Act 1995*: to conserve listed threatened species.
- iii. *National Forest Policy Statement of 1992, second edition 1995*: Tasmania and the Commonwealth agreed in 1995 'to maintain an extensive and permanent forest estate in Australia, and to manage that estate in an ecologically sustainable manner' (Explanatory Memorandum to RFA Bill).
- iv. *Regional Forest Agreements Act 2002*: forestry operations undertaken in accordance with a Regional Forest Agreement (RFA) are not subject to the EPBC Act prohibition on actions likely to have a significant impact on nationally threatened species or communities. This is because it was considered that environmental values had been comprehensively assessed during the RFA process, and the RFAs themselves contained an agreed framework on ecologically sustainable development of the forest regions over the next 20 years (Regional Forests Agreement Bill 2002 Explanatory Memorandum).
- v. *Nature Conservation Amendment (Threatened Native Vegetation Communities) Act 2006* and the *Forest Practices Amendment (Threatened Native Vegetation Communities) Act 2006*: to conserve listed threatened plant communities.

Appendix 2. The impact of climate change on Swift Parrots.

The physical changes predicted to result from greater concentrations of greenhouse gases in the atmosphere (climate change) are summarised (1.1, Table 5). We then describe how these changes are expected to affect Swift Parrot habitat, and in turn how these habitat impacts may affect the behaviour and conservation status of Swift Parrots.

1. Physical changes

1.1 Predictions

Earlier modelling of climate change in those parts of Tasmania used by Swift Parrots predicted that, with the island’s more maritime climate, changes to 2040 would be more moderate than on the south-eastern mainland. McIntosh *et al.* (2005) predicted decreases in rainfall (10 – 20%) for most of the northern and eastern parts of the state, very small increases in wind speed along the northern coast, and small increases in:

- i) evaporation,;
- ii) annual maximum temperature (0.3 – 0.7°C) along the east coast; and
- iii) annual minimum temperature ($\leq 0.5^\circ\text{C}$) throughout the state.

They also warned against ‘placing undue emphasis on particular details’, but noted that climate change science is sufficiently robust to be capable of predicting the likely changes in Tasmania over the next 35 years.

Later modelling by CSIRO and the Bureau of Meteorology (2007) predicted the changes given in Table 5 for the breeding range of Swift Parrot in the spring breeding season and the post-breeding dispersal in summer and autumn, for scenarios of low, medium and high emissions.

Table 5. Predicted climate change to 2070 for part of ¹⁵ Swift Parrot breeding and post-breeding habitat in Tasmania.

	spring	summer	autumn	annual mean
temperature (50th percentile)¹	+ 0.6 – 2.5°C	+ 1.0 – 2.5°C	+ 1.0 – 2.5°C	+ 1.0 – 2.5°C
rainfall (50th percentile)¹	-2 – -20%	-2 – -20%	+2 – -10%	+2 – -10%
humidity (50th percentile)	+0.5 – -2%	+0.5 – -0.5%	+0.5 – -1.0%	+0.5 – -1.0%

¹⁵ The south-eastern corner, east from 147° 20' or 30' (east of Bruny Island) and south from 42° 30' (Triabunna) is unfortunately excluded from the temperature and rainfall modelling.

Hennessy *et al.* (2005) predicted that Tasmania is likely to be relatively unaffected by the increased intensity and frequency of fires predicted for mainland south-eastern Australia as a result of a hotter and drier climate: they modelled changes in 'fire weather risk' for Launceston and Hobart, and predicted an increase for Launceston and a decrease for Hobart.

1.2 The last 11 years

Northern and eastern Tasmania are two of the areas most affected by the drought since summer 1996/97 (Bureau of Meteorology 2007), and the area of Swift Parrot breeding habitat in south-eastern Tasmania and along the northern coast had its lowest recorded rainfall from November 1996 to October 2007, lower than any other 11-year period.

2. Climate change impacts

2.1 Direct effects

The physical changes predicted above for northern and eastern Tasmania (higher CO₂ levels, higher temperatures, lower rainfall) can be expected to stress both eucalypts and the psyllid insects on which Swift Parrot largely depend for food. Stressed plants either flower more poorly, or do not flower at all, and so nectar availability will be diminished, as recorded for Tasmanian blue gum by Mallick *et al.* (2004).

Low (2007) described how populations of insects such as psyllid bugs might be diminished by changes in plant absorption of CO₂ (photosynthesis): increased atmospheric CO₂ levels produce lower levels of nitrogen in plant tissues, and so sap-feeding insects, which obtain their nitrogen to build proteins from the sap they eat, are disadvantaged by lower nitrogen levels. Lower-nitrogen leaves are also tougher, and higher in tannins and other unpalatable carbon-based compounds. But conversely, as CO₂ increases, plants photosynthesise more efficiently, and therefore transpire less, so the water content of leaves should remain higher during dry times. This will facilitate the digestion of scarce nitrogen and increase insect survival. But if droughts are worse, as predicted, some of this benefit will be negated.

2.2. Changes in behaviour

Changes in arrival and departure times of migratory species (Chambers 2008), and of flowering and emergence times have already been recorded. The synchronising of Swift Parrot arrival in the south-east with the flowering of Tasmanian blue gum and black gum, and the development of psyllid nymphs, could be broken and any disruption of this pattern would lessen the likelihood of successful breeding (Jenni & Kery 2003).

3. Conclusion

The Swift Parrot is likely to be disadvantaged by climate change because it has a small population and is a specialist feeder, dependent on mature vegetation for both feeding and nesting (Mansergh & Bennett 1989; Olsen 2007). The stresses of climate change will interact with other threatening processes to magnify their impact (Chambers *et al.* 2005). For example, climate change may reduce the reproductive success of populations already fragmented by habitat removal, and further reduce their viability. The existing long-term national volunteer surveys provide an excellent opportunity to obtain landscape-scale data to monitor the impacts of climate change on the Swift Parrot.

Appendix 3. Logging in known Swift Parrot breeding sites

This appendix gives examples of what happens in the coupe by coupe planning and decision-making process in some of the main known Swift Parrot breeding areas (Table 6). In October 2006, Tasmanian Greens MLA, Tim Morris, made a series of FOI requests to Forestry Tasmania and the Forest Practices Authority, requesting correspondence and advice relating to the Swift Parrot since July 2005. These documents, together with Forestry Tasmania’s most recent *Three Year Wood Production Plan (2007/08-2009/10)* (Forestry Tasmania 2007) and evidence from the Wielangta Forest court case, are the main sources of information.

Table 6. Planned logging in known Swift Parrot breeding areas

forest block	no. of coupes	area (ha)	major breeding aggregation
South Bruny	5	141	2006, 2007
Southport	23	975	2007
Hopetoun	25	725	2007
Kerlandie	17	457	2007
Franklin	23	710	2007
Wielangta	4	181	2001, probably 2004, 2008
totals	97	3189	

1 South Bruny

Five coupes totalling 141 hectares¹⁶

Bruny Island is a well-known Swift Parrot nesting and foraging area, identified as a ‘most important’ breeding area by Brown (1989). In November 2006, coupe SB017B was partially logged before a recommended Swift Parrot nesting survey had been carried out. Hollow trees were felled that almost certainly contained active nests and it is possible that eggs, nestlings or even adults were destroyed in the process. Despite a recommendation that the remaining unlogged part of the coupe should be permanently protected, it is scheduled for logging in Forestry Tasmania’s current three-year plan.

¹⁶ For each forest block, the number of coupes and hectares logged or scheduled to be logged comprise coupes for which FOI documents are available (most of which have probably already been logged) and coupes listed in FT’s Three Year Wood Production Plan

South Bruny -- coupe SBO17B (58 hectares)

15 February 2006	FPA notified of the coupe plan, including a known nest record 2 km from the coupe. The southern section of the coupe was identified as 'regrowth'.
27 June 2006	A site visit confirmed that about one-quarter of the coupe should be protected. The southern section was not visited because it was described as 'regrowth'. It was predicted that Swift Parrots would breed in the area in 2006/07 and recommended that pre-logging surveys should be carried out.
4 July 2006	Forest Practices Plan certified
Early October 2006	Large numbers of Swift Parrots discovered about 2 km from the coupe
24 October 2006	FPA requested to do a survey to confirm the presence of nests
3 November 2006	Site visit identified 2 nests and much Swift Parrot activity About half the coupe had already been logged in the southern section, supposedly 'regrowth'. It contained hollow-bearing trees that almost certainly would have contained active nests prior to being felled
21 November 2006	FPA recommended that the unharvested part of the coupe should be permanently reserved (through FT's Management Decision Classification system protection layer)
2007	26 hectares scheduled for logging in FT's 3-year wood production plan. This appears to be the unlogged part of the coupe, recommended for permanent protection.

2 Southport

Twenty-three coupes totalling 975 hectares

Southport forest block lies between Southport and Dover. Brown (1989) recorded Swift Parrots in blue gums throughout the area, especially around Lady Bay and the slopes to the west. In spring 2007, Swift Parrot breeding was highly concentrated in this region (together with South Bruny), making it critical breeding habitat for the species. The birds used forests dominated by *E. regnans*, *E. delegatensis*, *E. obliqua*, *E. globulus* and *E. ovata* where flowering *E. globulus* and/or *E. ovata* were present, or senescent eucalypts of any species (Webb, 2007).

Google Earth shows extensive past logging. Forestry Tasmania's three-year plan lists several hundred hectares each year for logging. The history of coupe SOO13C illustrates the kind of pressure applied by Forestry Tasmania: those working to protect the species are accused of 'poor science', requesting reservation in excess of Forestry Tasmania's obligations, and reminded of potential compensation implications. Half the coupe has been logged and the other half, recommended for protection, appears to be in the current three-year logging plan.

Southport – coupe SO013C (64 hectares)

January 2006	Initial evaluation (under then existing TFM habitat description) determined that there was no suitable Swift Parrot habitat. Coupe proposed for conversion to plantation.
4 July 2006	After a site visit, and on the basis of the new TFM habitat description (introduced 4 July 2006), FPA advised FT that all <i>E. globulus</i> dominated forests should be excluded from harvesting and that the proposed <i>interim</i> landscape Wildlife Habitat Clump (WHC) should be made permanent.
14, 17 July 2006	Amy Ware (FT Planning Coordinator): ‘The advice received on swift parrot management in this coupe appears to be based on inconclusive and poor science’. ‘The recommended area of reservation greatly exceeds the landowner’s obligations...under the CoFP’ [Code of Forest Practices]. ‘The potential financial loss on FT’s part...has potential compensation implications under the Threatened Species Act’. Terry Ware (FT Forest Practices Officer): Requests review of recommended prescriptions on the basis of fire, safety and possible need to vary the landscape WHC during harvesting.
26 July 2006	Response provided to FPA re the Wares’ concerns
8 August 2006	Revised coupe plan submitted (noting that the coupe has ‘become very urgent due to contractor issues’)
16 August 2006	Revised coupe plan accepted. It involved reservation of most of the wet bluegum forest; an area of about 2 ha was allowed to be logged and regenerated. The landscape WHC was to be permanent.
2007	Coupe scheduled for logging in 2008/09 (this appears to be the remaining unlogged portion of the coupe, originally recommended for protection).

3 Hopetoun

25 coupes totalling 725 hectares

Hopetoun forest block lies between Dover and Glendevie, within the area of concentrated Swift Parrot breeding in spring 2007. Brown (1989) also recorded the birds here regularly on the slopes on either side of the Dover-Geeveston road as well as further to the east and west. Specific areas he mentions include Storm Hill (coupe HPO09B). Logging, including conversion to plantations, has been so extensive that the TSS recommended coupe HPO09B should be protected. The FPA rejected the recommendation and allowed logging to proceed.

Hopetoun – coupe HPO09B (Storm Hill) 84 hectares

1989	Brown (1989) reported Swift Parrots in large blue gum stands at Storm Hill road
February 2006	Initial evaluation identified no suitable habitat
20 June 2006	Site visit
2 August 2006	Site visit identified that substantial proportion of the coupe was high quality foraging habitat, and older trees with hollows were potential nesting habitat
15 September 2006	In view of the importance of the coupe for Swift Parrots and other species, and the impacts of previous conversion to plantation on habitat loss and fragmentation, TSS supported the recommendation that the coupe be retained unharvested
10 November 2006	Despite the TSS recommendation for protection, FPA advised that logging and plantation establishment could proceed if wet globulus is excluded from harvesting and hollow bearing trees (in any eucalypt species) are retained 'where possible'. Logging proceeded in part of the coupe during the 2007 breeding season whilst Swift Parrots were known to be nesting in the area.
2007	The balance of the coupe (45 hectares) is listed for logging in 2007/08 and 2008/09.

4 Kermandie

17 coupes totalling 457 hectares

Kermandie lies to the south and west of Geeveston. Brown (1989) reports that Swift Parrots were 'especially common' throughout the breeding season in the Geeveston-Port Huon area, almost certainly nesting in the nearby forested slopes. In response to the FOI request for all documents pertaining to Swift Parrots, material was produced for only four of the 17 listed coupes, strongly suggesting that most of the coupes were not identified as containing suitable habitat.

For one coupe (KD004F) reported as supporting mature and regrowth bluegum, and within 3 km of a known foraging record, the recommended prescription is one wildlife habitat clump and no special measures. It is scheduled for logging in 2009/10. In the 2007 breeding season, Swift Parrots were found in or near 13 of the 17 coupes scheduled for logging, including KD004F.¹⁷

5 Franklin

23 coupes totalling 710 hectares

Franklin is the forest block to the west of the Channel from Geeveston to Huonville, described by Brown (1989) as supporting good habitat on the hills right through to the west of Castle Forbes Bay,

¹⁷ The location of Swift Parrot records in relation to logging coupes was estimated by comparing the sites mapped in Webb (2007, Fig 2.3) with coupes mapped on Google Earth.

Franklin and Huonville. In 2007, breeding birds were recorded in 16 of the 23 coupes scheduled for logging (Webb 2007). FOI information was produced for very few coupes, with no special prescriptions for the Swift Parrot, strongly suggesting that suitable habitat was not identified in the planning process.

6 Wielangta

4 coupes totalling 181 hectares

Much of Wielangta has been logged, especially the southern portion. The northern core around Wielangta Hill remains substantially intact, apart from coupe WTO17D which the court permitted to be logged in 2005. Wielangta has been known since at least 2001 to be an important Swift Parrot breeding area. Despite this, the court allowed Forestry Tasmania to log coupe WTO17D and its known Swift Parrot nesting sites.

The Wielangta Forest court case gives unprecedented insight into the process through which recommendations to protect the Swift Parrot can be varied or ignored in favour of logging. In 2001, after agreement between the Forest Practices Authority and Forestry Tasmania to protect breeding sites, Forestry Tasmania simply decided not to. In June 2008, a specific assessment that coupes including 19D contain high quality nesting and foraging habitat, resulted in no change to the Forest Practices Plan when it was extended by two years.

Wielangta – coupe WTO19D (Wielangta Hill)

November 2001	David James found significant breeding activity around Wielangta Hill and drew a map with green shading to locate the areas
December 2001	MK Miller (FT), FPA and David James met and agreed that the green-shaded zones would be excluded from logging; FPA advised FT in writing of the decision but FT decide not to map the areas as ‘protected’ and subsequently varied them substantially to allow logging in the green zones (T2033--56)
11 April 2005	FPP certified by Bruce Haywood. He had not at the time seen the advice from FP to exclude the ‘green zones’ from logging, nor David James’ report (T2321). The FPP specifies for Swift Parrots only that potential nesting habitat will be incorporated into 6 wildlife habitat clumps.
May 2005	Confusion about the exact location of Swift Parrot nest sites. Discrepancies of up to 600 m discovered between records in FT and other data bases
30 May 2005	Wielangta Forest court case commenced; moratorium on logging 19D
August 2005	Designated Swift Parrot reserve adjacent to WTO17D logged
October 2005	FT and FPA agree that Swift Parrot prescriptions for WTO19C, 019D and others need survey and review
March 2006	TSS and FPA survey of Swift Parrot habitat values in coupes WTO19D, WTO19C, WTO17B and WTO43I finds that all four coupes ‘contain high quality nesting and foraging habitat for Swift Parrots’.

	Harvesting ‘would result in the loss of significant areas of high quality breeding habitat, and almost certainly result in the loss of Swift Parrot nesting sites. This would be inconsistent with the Swift Parrot Recovery Plan (2001) and the intent of the Threatened Fauna Adviser, which states “all known nest sites should be protected”.’
May 2008	High Court refuses special leave to appeal the Full Federal Court decision in the Wielangta Forest case, effectively re-opening Wielangta for logging
June 2008	FPP completion date extended to 31 August 2010 (originally expired on 31 August 2008). The Swift Parrot prescriptions remained unchanged, despite the March 2006 report.
September 2008	The local South East Forest Protection Group was advised by FT that logging would commence as soon as additional information on orchids was received, expected by 30 September 2008.
29 September 2008	FT to date has not surveyed for Swift Parrots. A one-day survey by concerned residents found numerous Swift Parrots in and around 19D, including birds inspecting and excavating nest hollows

6.1 The future of Wielangta coupe 19D

In May 2008, the Wielangta Forest trial ended when the High Court refused special leave to appeal the Full Federal Court decision re-opening Wielangta to logging. In June, the forest practices plan for coupe WTO19D, one of those at the centre of the court case, was extended by two years with no change to the Swift Parrot prescriptions. In August, the Swift Parrot project officer was assigned to other duties, meaning that no research or survey work will take place in spring 2008. In September 2008, Forestry Tasmania made clear its intention to log WTO19D within weeks. It was left to concerned residents of the local community to undertake their own Swift Parrot survey on 28 September 2008 – they found numerous birds clearly preparing to breed.

As of 6 October 2008: Forestry Tasmania has been advised of the survey results and states that the area will be ‘investigated’; the federal environment minister claims he is powerless to intervene because forestry agreements are exempt from federal environment laws.

7 Other areas

Forest areas including the eastern edge of the Arve, Mt Murchison (west of Wielangta), Buckland (north of Orford) and Tooms (south of Swansea) may also support aggregations of breeding Swift Parrots in suitable seasons. There are breeding records from Mt Murchison and Buckland. All three blocks have been heavily logged but there has been no systematic assessment of their significance as breeding habitat.