



## Appendix I Threatened, Migratory and Marine Terrestrial Fauna Species Descriptions

Below are species descriptions for threatened, migratory and marine terrestrial fauna species (listing categories shown after the species name) detected during the present survey and documented (DSE Senior Staff) from within the survey corridor. It should be noted that these species descriptions are very basic physiological and ecological descriptions and are only intended as a general guide. These descriptions do not address the full range of habitats that species outlined below are likely to occur in. Likewise the presence of habitat as described below does not mean that a particular species is present. A range of techniques, including, but not limited to, species descriptions should be employed to determine the likelihood of occurrence of a species within the survey corridor.

### I.1 Birds

#### Stubble Quail *Coturnix pectoralis* (Ma)

The Stubble Quail is a small, ground-dwelling bird with dark-brown upperbody plumage overlain with cream streaks and bars, giving a finely mottled appearance. Their flanks and underparts are paler, with the male distinguished by a rich buff throat. Predominantly a seed-eater, this species will also feed on green foliage and insects. The preferred habitat of the Stubble Quail is open grassland country, however they are also frequently found in low open shrubland, including the saltbush and bluebush communities of inland Australia. Today they are commonly encountered in the cropping country of eastern and southern Australia and in the south-west of Western Australia. The Stubble Quail is threatened by habitat modification as a result of grazing by domestic stock and rabbits, and is also susceptible to predation by foxes and cats.

#### Brown Quail *Coturnix ypsilophora* (NT)

The largest of Australia's native quail, the Brown Quail is characterised by its plump appearance and brown upper plumage with wavy black barring and silver streaks which give it a finely marbled appearance. Its underparts are a rich chestnut with similar black and silver barring. Predominantly a seed eater, the Brown Quail will also feed on green foliage and insects and its preferred habitat is grasslands and grassy woodlands, open swamps and pasture paddocks. This species has a wide distribution and is found in suitable habitat throughout Australia's tropical and temperate zones. Threats to the Brown Quail include habitat destruction and fragmentation as a result of vegetation clearance for agriculture and urban development. As a ground nester it is also susceptible to predation by foxes and cats.



#### **Little Button-quail *Turnix velox* (NT)**

The Little Button-quail is a very small (12 - 14cm) bird with a heavy blue-grey bill and pale cream eyes. The female is pinkish cinnamon above with whitish streaks, whitish fawn below with washed buff across the breast, and has white flanks and belly. The male is pale brown with a darker pattern on the crown and upperparts and dark scallops on the sides of the neck and breast. This species inhabits a significant proportion of mainland Australia (except coastal far north) where it is nomadic and can be abundant inland in good years. They are summer migrants to sub-coastal southern Australia but are sparse south-east of the Divide. They occupy a diverse range of terrestrial and freshwater habitats, including grassy plains, creekflats and woodlands; burned areas; saltbush and spinifex; mulga and mallee; margins of wetlands; and crops, pastures and stubble. Key threats to the little button quail include habitat clearance and predation by introduced foxes and cats.

#### **Plains-wanderer *Pedionomus torquatus* (VU, L, CR)**

The Plains-wanderer is a quail-like bird with a dark brown speckled head, back and wings, and a lighter underside. The female has a rufous (red-brown) frontal 'collar'. Plains-wanderers live in sparse lowland native grasslands with open patches of bare ground. They feed on a wide range of seeds, insects and spiders, and can survive without regular access to water. They lay eggs in a small scratching in the ground that is lined with grass, and are generally sedentary birds unless displaced by changes to their habitat. Their former range is now much reduced and fragments, with isolated populations occurring in north-central Victoria, central-western Queensland and south-western New South Wales. Key threats to this species include cultivation of native grassland, the spread of dense pastoral land of introduced species, and predation from foxes and cats.

#### **Lewin's Rail *Lewinia pectoralis* (L, VU)**

Lewin's Rail, like the Spotless Crake, inhabits wetland environments and feeds on similar aquatic invertebrates or small vertebrates, like frogs. Lewin's Rail (21 - 23cm) is slightly bigger than the Spotless Crake, however both share a similar form. Another small wading bird with large feet, water quality and availability would pose a threat to this species, as would clearance of vegetation from habitat areas. Lewin's Rail is likely to leave areas where vegetation has been degraded, as this species uses dense vegetation to hide in to avoid exposure.

#### **Baillon's Crake *Porzana pusilla* (L, VU, Ma)**

Baillon's Crake (15 - 16cm) is found from Darwin to the south-west of Western Australia and from Cairns to Adelaide including Victoria, New South Wales and Tasmania. A water bird, Baillon's Crake inhabits reedbeds in wetlands where there is abundant subaquatic vegetation. Threats to



Baillon's Crake include diversion or drainage of water from wetland environments elsewhere and immediate destruction of habitat areas including vegetation surrounding wetlands.

**Spotless Crake *Porzana tabuensis* (Ma)**

The Spotless Crake (18 - 19cm), so named because it doesn't share the spotted or striated patterns of other Crakes, is a small wading bird that is distributed commonly from Tasmania to the north-eastern Atherton Tablelands. The Spotless Crake inhabits wetland and reedbed environments where it can wade through shallow pools and feed on invertebrates and frogs. Threats to the Spotless Crake include water diversion or drainage away from wetland environments and overall water quality. Clearance of vegetation around wetland habitats may also threaten the Spotless Crake.

**Black-faced Cormorant *Phalacrocorax fuscescens* (NT, Ma)**

The Black-faced Cormorant is a medium-sized (60 - 70cm, span 1m) white-breasted sea cormorant with a black flank mark, green eyes which are reached by the black crown, a dark grey bill, a throat pouch, and black facial skin. Their breeding plumage includes a finely streaked white hindneck. This sedentary species inhabits the coasts of southern Australia, from far east Victoria to south-west Western Australia. They are common in the Bass Strait and on the coasts of Tasmania, Victoria, and South Australia where they are abundant in the gulfs. Their exclusively coastal marine habitats include islands, larger bays and deep inlets; ashore mostly on isolated rock stacks and remote rocky headlands (seldom on beaches). Black-faced Cormorants feed largely on small coastal fish, which they catch by diving from the surface in depths of up to 12m. After fishing they sit with outstretched wings, evidently to dry their non-waterproofed feathers. Threats to this species include destruction (or development) of feeding habitats, and secondary poison via uptake of pollutants by fish.

**Pied Cormorant *Phalacrocorax varius* (NT)**

The Pied Cormorant is a large waterbird with a long, slender, pale-coloured bill and a wingspan of approximately 1.2m. It has black plumage on the top of its head, back of the neck, wings, back and tail, and white plumage below. The Pied Cormorant is distinguished from other similar cormorants by a patch of yellow/orange facial skin that extends from its beak to its eye. The preferred habitat of this species is shallow coastal waters and larger inland rivers and lakes. The Pied Cormorant dives underwater to catch prey that includes fish, crustaceans and molluscs. It has a broad distribution in Australia where it is found in all coastal waters, although it is less commonly recorded in southern Western Australia and along the Great Australian Bight. It is commonly observed in colonies on lakes and large rivers in southern and eastern states. Changes in the flooding frequency and flow regimes of major rivers pose a potential threat to the Pied Cormorant.



### **Australian Pelican *Pelecanus conspicillatus* (Ma)**

The Australian Pelican is a large water bird with a wing span of up to 2.5m. They have a predominantly white body with grey along the nape of the neck and a black tail and 'V' on their rump, their wings are predominantly black with some feather rows being white, and their bill is distinctively long pale pinkish with a huge throat pouch. This species is widespread throughout Australia on freshwater, estuarine and marine wetlands and waterways. Australian Pelicans mainly feed on fish, however they are opportunistic feeders and eat a variety of aquatic animals. Threatening processes for this species are habitat destruction and clearance, eutrophication causing blooms of aquatic vegetation, introduced predators, oil spills, pesticide poisonings, and fishing practices.

### **Whiskered Tern *Chlidonias hybridus* (NT, Ma)**

The Whiskered Tern (26cm) is distributed from northern Australia to southern Australia, excluding Tasmania. This species is generally considered to be a migrant to the southern regions in Australia rather than a permanent resident. The Whiskered Tern inhabits both freshwater and more saline wetland areas where water is shallow enough for feeding. The Whiskered Tern may use floating vegetation for nesting. Threats to the Whiskered Tern include destruction of vegetation and subsequent fragmentation of habitat.

### **Caspian Tern *Hydroprogne caspia* (L, NT, Mi, Ma)**

The Caspian Tern is the largest tern in Australia and is almost gull-sized. The distinctive characteristics of this species are the almost wholly-white plumage and massive blood-red bill, while the wings are grey with darker flight feathers. During the breeding season this species sports a black cap. The Caspian Tern is found throughout coastal Australia on wetlands, beaches and sheltered estuaries and feeds almost entirely on fish. The main threatening process for this species is habitat destruction and clearance.

### **Little Tern *Sterna albifrons* (now *Sternula albifrons*) (L, VU, Mi, Ma)**

The Little Tern is a small (21 -24cm), slender, migratory seabird. Their breeding plumage consists of a pale yellow bill with black tip, white forehead extending back over eyes in short white eyebrows, black cap with black wedge from eyes to bill, pale grey wings with black outer wing edges, and yellow legs. Nonbreeding birds have a black bill, large white forehead extending back over the eyes, black marks in front of the eyes, white crown, black nape, and dull yellow legs. The most widespread subspecies in Australia is *sinensis*, which inhabits coastal north-west, north-east and south-east Australia. Flocks of Asian-breeding Little Terns (also mostly *sinensis*) are summer migrants to northern and eastern Australia. The species is scarce in south-east Australia in winter as Asian birds depart and local birds apparently migrate coastally north. They are almost exclusively



coastal, preferring sheltered environments; however they may occur several kilometres from the sea and occasionally on offshore islands. Their habitats include coastal waters, bays, inlets, saline or brackish lakes, saltfields, and sewage ponds near the coast. They feed for small fish, crustaceans, insects, annelids and molluscs by plunge-diving into shallow saline water. Little Terns have suffered serious decline in south-east and eastern Australia due to human activities and developments causing disturbance to coastal feeding, nesting and roosting areas. Other threats include nesting at flood-prone locations, predation of eggs and chicks, land clearing in coastal and inland habitat areas, hydrological changes to water bodies, and susceptibility to contaminants.

#### **Silver Gull *Chroicocephalus novaehollandiae* (Ma)**

The Silver Gull, at up to 43cm, is one of Australia's most recognisable birds. Smaller than other Australian Gulls, this species inhabits coastal regions as well as along inland watercourses. The Silver Gull is present on suburban beaches and is able to occupy regions that have been altered by humans and that are settled by humans. Continued spread of this species indicates that it is successful, however the threats of habitat destruction and pollution are still relevant for this species. Silver Gulls are becoming pest species in some places where rubbish and food scraps are plentiful.

#### **Pacific Gull *Larus pacificus* (NT, Ma)**

The Pacific Gull is a very large (58 - 66cm, wing span 1.3 - 1.5m) black-backed gull with a disproportionate yellow bill broadly tipped with scarlet, yellow legs, upper wings and wingtips wholly black with narrow white inner trailing edge, and white tail crossed by a broad black band near the end. Young birds are mottled-brown all over, attaining their adult plumage gradually during the first four years. The adults are sedentary while younger birds disperse. This species is endemic to southern coastal Australia and occurs mostly on south and west coasts, Tasmania, and infrequently on the east coast. Their habitats include coasts, bays, offshore islands, coastal farmland, swamps, and garbage tips, with some following rivers inland. The Pacific Gull forages along the shore-line between the high-water mark and shallow water on sandy beaches, feeding mainly on molluscs, fish, birds and other marine animals. They sometimes take prey such as crabs or sea urchins and break them open by dropping them onto rocks from about 10 - 15m while flying. They also scavenge on human refuse, but are easily disturbed by human activities at breeding sites and roosting areas. This species occasionally become entangled in fishing lines. The Pacific Gull has become scarce in some parts of the south-east due to competition from the Kelp Gull, which has "self-introduced" since the 1940s.

#### **Black-winged Stilt *Himantopus himantopus* (Ma)**

The Black-winged Stilt is a large wading bird which is white with black wings, back and nape. They have a long straight and slender black bill and pink legs and feet. This species is found throughout most of mainland Australia as well as northeastern Tasmania, and they prefer



freshwater and saltwater marshes, mudflats, and the shallow edges of lakes and rivers. The Black-winged Stilt feed mainly on aquatic insects, but will also eat molluscs and crustaceans. The main threatening process for this species is habitat destruction and clearance.

#### **Bar-tailed Godwit *Limosa lapponica* (Mi, Ma)**

Bar-tailed Godwits are relatively large waders (reaching 45cm), with female birds being slightly larger than males. The Bar-tailed Godwit is mainly mottled brown above and lighter and more uniform buff below. It has dull white underwings, a long, slightly upturned bill, and a paler stripe running from the bill to above the eye. Distinctively, the white tail is barred with brown. During breeding, the plumage becomes darker and more rufous (particularly males). Bar-tailed Godwits migrate to Australia each year in August from breeding grounds in the northern hemisphere. While most birds leave Australia in April and May, to return to their breeding grounds, some birds (mostly young birds) remain all year round. Bar-tailed Godwits inhabit estuarine mudflats, beaches and mangrove habitats where wade through the shallows or over exposed mud and feed on molluscs, worms and aquatic insects. Threatening processes for Bar-tailed Godwits includes human developments in key feeding areas.

#### **Wood Sandpiper *Tringa glareola* (VU, Mi, Ma)**

The Wood Sandpiper is a small (20 - 23cm), slim migratory wader found mostly in shallow fresh waters, often among dead timber. They have a longish straight black bill, dark line from bill to eye under long white eyebrow and whitish eye-ring, and longish yellow-green legs. Non-breeding birds are grey-brown above with numerous white spots and 'notching' on wing feathers, whitish below and washed grey across the breast. The breeding plumage consists of rich grey-brown upperparts which are heavily spotted white, white throat, and grey-brown streaked foreneck and breast. Wood Sandpipers are regular summer migrants to Australia, breeding in northern Eurasia to north-east Siberia, and are moderately common in northern Australia, uncommon in southern Australia, and sparse in suitable inland environments. Their habitat preference includes muddy margins or wetlands, tidal mangroves, margins of tidal mudflats, saltmarshes and sewage points. They forage by probing in shallow water or on wet mud, feeding mainly on aquatic insects and their larvae, molluscs, and similar small prey. They also swim well and may feed by sweeping their bill from side to side under water. Wood Sandpipers have benefited from irrigation schemes and open sewage ponds and other artificial wetlands. Threats on their migration route to Australia include wetland destruction and altered watercourse flow regimes, pollution and hunting.

#### **Sharp-tailed Sandpiper *Calidris acuminata* (Mi, Ma)**

Sharp-tailed Sandpipers retain a variegated plumage throughout the year. The pale breast and flanks are covered with dark streaks and V shaped markings that provide good camouflage in low grasses. During the non-breeding season the primary colours are dark centred feathers with a buff



fringe and grey brown flecks and a white underbelly. During Breeding their plumage tends towards a rufous brown colour. Sharp-tailed Sandpipers favour grassy edges of shallow inland freshwater wetlands. It is also found around swage farms, flooded fields, mudflats, mangroves, rocky shores and beaches. The Sharp-tailed Sandpiper feeds on aquatic insects and their larvae, as well as worms, molluscs, crustaceans and sometimes, seeds. It is often found in large flocks, often with other waders, foraging in shallow waters. Key threats to this species include increasing urbanisation of coastal habitat, and alteration of flow regimes and the subsequent impact upon wetlands.

#### **Latham's Snipe *Gallinago hardwickii* (NT, Mi, Ma)**

Latham's Snipe (24 - 26cm) inhabits permanent wetlands or ephemeral fresh water wetlands, however this species may also tolerate more saline conditions. Latham's Snipe has been recorded as inhabiting areas that have been impacted by humans. Latham's Snipe can be found from the Cape York Peninsula in Queensland to south-eastern Australia. Major threats to Latham's Snipe include continued habitat disturbance. While this species is able to occupy areas that have been impacted by humans, continued habitat disturbance may have negative effects for Latham's Snipe.

#### **Australian Painted Snipe *Rostratula australis* (VU, L, CR, Ma)**

The Australian Painted Snipe is a stocky wading bird around 220 - 250mm in length, with a long pinkish bill. The adult female, more colourful than the male, has a chestnut-coloured head, with white around the eye and a white crown stripe, and metallic green back and wings, barred with black and chestnut. There is a pale stripe extending from the shoulder into a V down its upper back. The adult male is similar to the female, but smaller and duller with buff spots on the wings. The Australian Painted Snipe prefers shallow inland wetlands, either freshwater or brackish, that are permanently or temporarily inundated. It nests on the ground amongst tall reed-like vegetation near water, and feeds near the water's edge and on mudflats, taking invertebrates, such as insects and worms, and seeds. The species has a scattered distribution throughout many parts of Australia, with a single record from Tasmania. Key threats to this species include alteration of water flow regimes and natural drainage patterns, habitat clearance, and predation by foxes and cats.

#### **Bush Stone-curlew *Burhinus grallarius* (L, EN)**

The Bush Stone-curlew, previously known as the Bush Thick-knee, is a large (52 - 58cm), slim, mainly nocturnal, ground-dwelling bird. It is mostly grey-brown above, streaked with black and rufous and whitish below with clear, vertical black streaks. The bill is small and black with large and yellow eyes and a prominent white eyebrow. The voice is a characteristic drawn-out, mournful "wer-loooo", often heard at dusk and during the night. Found in open grassy woodlands of buloke (*Allocasuarina*), gum or box with low, sparse grassy or herb understorey. Nests are commonly located beside fallen logs, presumably to avoid predation. Farmlands are also a known habitat for



this species. The bush stone curlew's range in Victoria has significantly reduced in recent times, now largely confined to grassy woodlands and farmland. Previously found in loose flocks of up to one hundred individuals, these birds are now commonly seen in groups of 1 to 4 pairs in Victoria. The central and western regions and the northern plains are known to support the greatest populations. It is now extinct in many former spots south of the Great Dividing Range. While its Victorian and New South Wales stronghold is along the border region, this species is sparsely distributed and continues to decline. Predation by the European red fox is the main threat facing the bush stone curlew.

#### **Glossy Ibis *Plegadis falcinellus* (NT, Mi, Ma)**

The Glossy Ibis (48-61 centimetres) is primarily distributed throughout northern and eastern Australia where suitable shallow mudflats occur for feeding. This species is distinctive by its iridescent feathers, as well as being smaller than other Australian Ibises. The Glossy Ibis may also prefer wetlands, floodplains and mangroves with dense vegetation. This species may nest in colonies with other individuals from the same and different species. The key threats to the Glossy Ibis are diversion or drainage of water from wetland habitats for human usage. This has the potential to disrupt breeding and feeding of the Glossy Ibis.

#### **Australian White Ibis *Threskiornis molucca* (Ma)**

The Australian White Ibis is a medium sized marsh bird with a long, thin drooping bill, white body, and black bill, head, and naked neck, which has horizontal pink bands on the nape. Their wings have greenish-black tips on the flight and secondary feathers, and naked red patches underneath. This species is widespread in northern and eastern Australia and prefers swamps, lagoons, floodplains and grassland, but will also visit urban parks and gardens. Their range of food includes both terrestrial and aquatic invertebrates, with their most favoured food being crayfish and mussels. The main threatening process for this species is habitat destruction and clearance.

#### **Straw-necked Ibis *Threskiornis spinicollis* (Ma)**

The Straw-necked Ibis is a large bird distinguished by its white neck and underparts, black glossy wings and back, and yellow straw-like neck plumage. This species prefers freshwater swamps and other shallow wetlands including irrigated pasture. They can also be found on dry grasslands sometimes far from water and, less frequently, intertidal flats. The straw-necked ibis feeds on insects, frogs and crustaceans and is a highly mobile, nomadic species commonly encountered in coastal areas on mainland Australia. This species is threatened by habitat loss, particularly the draining of wetlands for urban and agricultural development, however this is thought to be somewhat offset by the development of irrigated pasture in some areas.



### **Royal Spoonbill *Platalea regia* (VU)**

The Royal Spoonbill (75 - 80cm) is distributed from northern Australia through to Victoria and southern South Australia and can be distinguished from other spoonbills by the black bill and smaller size (Yellow-billed Spoonbill can reach up to 90cm). This species is not generally found in southern Western Australia or Tasmania. The Royal Spoonbill feeds on mudflats and in shallow freshwater wetland areas, therefore the applicable threats for this species are alteration of habitat through drainage or diversion of water away from habitat areas for other uses.

### **Little Egret *Egretta garzetta* (L, EN, Ma)**

The little egret is recognised by a black bill, with yellow to orange facial markings and an entirely white plumage. It has a characteristically slender build, and relatively small size (55 - 65cm). It is associated with aquatic habitats, including shallows of wetlands, and shallow margins of inland rivers and lakes. The egret is found throughout many areas of Australia, with the exception of more arid regions, such as the Nullarbor Plains. The little egret is an active diurnal feeder, exhibiting chasing and running behaviours. The main threats to the little egret are from manipulation of water regimes, such as drainage, modification and clearing of waterways. Habitat modification due to timber harvesting and disturbance associated with recreational activities may also threaten its breeding and feeding habitat.

### **Intermediate Egret *Ardea intermedia* (L, CR, Ma)**

The Intermediate Egret has distinctive orange or red facial markings with white plumage and lacy plumes arising from the upper breast and scapulars. Its beak is shorter and thicker than the greater egret, also being smaller in size at 56 - 70cm. It is distributed throughout eastern Australia and significant coastal areas of the Northern Territory, being absent from more arid zones. The Intermediate Egret has similar habitat preferences to the Little and Great Egret, found within shallows of wetlands and shallow margins of inland rivers and lakes. The main threats to this species are from changes to water regimes, through land drainage and modification, including waterway clearance. Habitat modification and disturbance from timber harvesting has been recognised as a significant threat to the breeding and feeding opportunities for this species.

### **Great Egret *Ardea alba* (L, VU, Mi, Ma)**

The Great Egret, at up to 90cm, is distinguishable from the Little Egret (up to 65cm) through size. The Great Egret is found throughout the Australian mainland and Tasmania and occupies a wide variety of wetland environments especially in the interior of Australia. The Great Egret consumes a variety of aquatic invertebrates (insects, crustaceans) and small vertebrates (frogs, small fish). Major threats to the Great Egret include habitat destruction and water availability in wetland



environments. Clearance of vegetation around wetland environments may also impact negatively on the Great Egret, as this vegetation may provide habitat for prey items.

#### **Cattle Egret *Ardea ibis* (Mi, Ma)**

The Cattle Egret is Australia's smallest egret and is readily identified during breeding season when its all-white plumage is embellished by orange-buff plumes on the head, breast and lower back. It has a long yellow bill, which changes to bright red during breeding season. The Cattle Egret is a gregarious species often observed in large dispersed flocks between grazing livestock or other large herbivores. This species feeds on insects, (particularly grasshoppers), frogs, lizards, worms and small mammals. Its preferred habitat includes floodplains, shallow swamps and irrigated pastures. The Cattle Egret is a recent arrival to Australia being first reported in the Northern Territory in the early 1900's. Since that time it has expanded in range and is now commonly observed in northern Australia, the east coast and along the southern coast west to Spencer's Gulf. This species appears to be common and expanding in Australia, and it is considered that there are currently no significant threats to its continued survival.

#### **Nankeen Night Heron *Nycticorax caledonicus* (NT, Ma)**

The Nankeen Night Heron (56 - 64cm) is a primarily nocturnal bird that is distributed from northern Australia including far-north Queensland to Tasmania, including South Australia, New South Wales and Victoria. The Nankeen Night Heron may also be found in southern Western Australia. The Nankeen Night Heron prefers to inhabit permanent wetland areas. Threats applicable to the Nankeen Night Heron include drainage and destruction of permanent wetland areas and modification of habitat. Populations of the Nankeen Night Heron have recently been recorded as declining, indicating that this species is susceptible to habitat threats, leading to its Near Threatened conservation status.

#### **Little Bittern *Ixobrychus minutus* (L, EN)**

The Little Bittern is a small wetland bird which displays sexual dimorphism. Males exhibit a black coloration on the crown, back and tail, which is replaced by brown in the female. The hind neck is characterised by deep reddish brown with breast and flanks white with streaked dark and light brown patterning. The little bittern has a very patchy distribution across Australia, with relatively small known breeding areas. It is found within terrestrial wetlands, and occasionally, estuarine and littoral habitats, particularly in dense vegetation in freshwater swamps, lakes and watercourses, particularly in patches of tall sedge, reeds or rushes. They have been known to use artificial wetlands, even in built up areas. Little bitterns feed exclusively upon small aquatic invertebrates and tadpoles. They are a very secretive species, nesting in dense vegetation over water, with a deep repetitive croaking call. Key threatening processes include salinisation and direct loss of wetland habitat through drainage and diversion of water for irrigation.



### **Australasian Bittern *Botaurus poiciloptilus* (L, EN)**

The Australasian Bittern is a large, stocky bird species up to 72cm in length. Displaying cream streaked and barred dark brown patterns on the underside and brown mottled cream markings on the upper side and wing coverts. The Australasian bittern has a relatively broad distribution within south east Australia, with a relatively small population found within the coastal south western area. This species favours permanent freshwater wetlands with tall, dense vegetation, such as reedbeds, swamps, streams and estuaries. Essentially a nocturnal feeder, it preys upon amphibians and macro-invertebrate species, including yabbies. Key threats include loss of habitat through wetland and pond drainage, water quality deterioration from siltation, pollution and salinity impacts, and also predation by cats and foxes.

### **Australasian Shoveler *Anas rhynchos* (VU)**

The Australasian Shoveler (45 - 53cm) inhabits swamps and wetlands that feature dense vegetation coverage. The Australasian Shoveler may also be found in more open water and less commonly, along the coastline. The Australasian Shoveler may be found from Western Australia, through south-eastern Australia up to Cairns in northern Queensland. The major threats to the Australasian Shoveler include alterations made by humans to flows of waterways that this species relies on for habitat. Droughts may also affect the flows of these waterways. The main problem that alteration of flow rates may cause to the Australasian Shoveler is subsequent interruption of breeding cycles.

### **Freckled Duck *Stictonetta naevosa* (L, EN)**

The Freckled Duck is a moderately large (48 - 59cm) broad-bodied duck with a blackish head that is large and peaked at the rear and has a markedly scooped grey bill. Breeding males have a bright wax-red base to their bill, blackish brown plumage that is finely freckled pale buff to whitish, with paler underparts. Females are paler and finely freckled. This species is native to southern Australia, mostly inhabiting irregularly flooded lignum swamps in western New South Wales, far south-west Queensland, north-east South Australia, and south-west Western Australia. They disperse into coastal south-east and southern Australia, north-west Western Australia, Northern Territory, and Queensland as summer/winter visitors. Freckled Ducks are rare, irruptive, and nomadic, preferring large well vegetated swamps but moving to permanent open waters in drier periods or after breeding. They feed at dawn and dusk and at night on algae, seeds and vegetative parts of aquatic grasses and sedges and small invertebrates. They feed by dabbling in shallow water, often wading near the edge. Threats to this species include draining, clearing and/or salinisation of wetland and swamp habitat; changes to natural river flows and flood patterns due to regulation and diversions; grazing and trampling of wetlands by stock; and illegal shooting.



### **Hardhead *Aythya australis* (VU)**

Hardheads (41-54 centimetres) are diving ducks that inhabit wetlands, rivers with deep water for diving, and large lakes. Hardheads have also be found occupying small streams and shallow pools where diving may be inhibited in the shallow water. Flooded grasslands also provide habitat to Hardheads. Compared with other duck species, the male and female morphs of this species are not significantly different, with both sharing the same rich chestnut colour. Hardheads are declining nationally and this may be due to threats such as habitat clearance and fragmentation and alteration of waterway flows through human activity and drought.

### **Blue-billed Duck *Oxyura australis* (L, EN)**

The Blue-billed Duck (35 - 44cm) is endemic to Australia's south-eastern and south-western regions, however is most common in the southern areas of the Murray Darling Basin. The Blue-billed Duck inhabits permanent wetlands, preferably large with deep water for foraging and diving. Dense vegetation surrounding the wetlands is also preferable. Threats to the Blue-billed Duck include destruction of wetland habitats through drainage or diversion of water away from wetlands for other uses. Clearance of vegetation surrounding wetland habitats would also impact negatively on the Blue-billed Duck.

### **Musk Duck *Biziura lobata* (VU, Ma)**

The Musk Duck (47 - 72cm) is found in New South Wales, Tasmania, southern South Australia and southern Western Australia. The Musk Duck prefers permanent wetland areas with deep water, however this species has occasionally been sighted on more open water. Threats to this species include alteration of habitat, especially regarding water usage and environmental flows to wetland areas. The male Musk Duck is significantly bigger than the female Musk Duck, with a bigger lobe of skin beneath the bill. Lack of water inflow to wetland habitat areas may disrupt breeding and feeding of this species. Hunting of ducks may also impact negatively on Musk Duck populations.

### **Spotted Harrier *Circus assimilis* (NT)**

The Spotted Harrier is a large, slim-bodied raptor with a distinct white-spotted rufous breast and predominantly grey wings, back and neck. It has a clear chestnut coloured facial disc with a narrow light grey ruff around it and yellow eyes. It has long slender yellow legs and a long tail, with a wedge-shaped tip. Its long, broad wings have dark, well rounded, and fingered tips. The female Spotted Harrier is larger than the male. They are found throughout mainland Australia and also occur in Indonesia. Although widespread, this species is sparsely distributed. They generally occur in open wooded country in tropical and temperate Australia, but are also present in arid and semi-arid areas. The Spotted Harrier hunts during the day by flying low over the ground searching



for ground birds such as quail and pipits and, mice, rats, rabbits and lizards. Key threats to this species include habitat clearance.

#### **Swamp Harrier *Circus approximans* (Ma)**

The Swamp Harrier is a large hawk with predominantly dark brown plumage above and a prominent white rump. It is readily distinguishable in flight as it soars low on long, broad, upswept wings. This species prefers open habitats including swamps and other shallow wetlands, grasslands and cropping areas, where it hunts for reptiles, birds, eggs, insects and mammals. The Swamp Harrier is also known to feed on carrion. They are distributed throughout coastal and temperate Australia and are only occasionally recorded in more arid areas - usually following major rainfall events. This species is widespread and appears to have adapted well to urban and rural development, however it may be threatened by habitat loss and modification, predation by foxes, and destruction of nests by crop harvesters and haymaking machinery.

#### **Grey Goshawk *Accipiter novaehollandiae* (L, VU)**

The Grey Goshawk is a medium-sized raptor with two colour morphs, both of which have a dark red eye and yellow legs and feet. The grey morph has grey upperparts with white underparts, barred grey on the chest, while the white morph is pure white all over and is often known as the White Goshawk. This species is found in coastal areas in northern and eastern Australia - the white morph is predominant in the more open forests of north-western Australia, coastal Victoria, and Tasmania, while the grey morph is more common in the thicker sub-tropical forests of the east coast and does not occur in Tasmania. The Grey Goshawk diet consists of birds, small mammals, reptiles, and insects. The main threatening process for this species is general and nesting habitat destruction and clearance.

#### **Brown Goshawk *Accipiter fasciatus* (Ma)**

The Brown Goshawk is a medium-sized hawk with a brownish slate-grey upperside with a distinct chestnut collar and an underside of narrowly banded pale rufous. This species prefers forest and thick scrub, but can also be found near desert waterholes and along watercourses. The Brown Goshawk is found throughout mainland Australia and parts of Tasmania and feeds on small mammals, especially rabbits, birds, reptiles, insects, and carrion. The main threatening process for this species is habitat destruction and clearance.

#### **White-bellied Sea-eagle *Haliaeetus leucogaster* (L, VU, Mi, Ma)**

The White-bellied Sea-eagle is not commonly found in settled areas, however it is distributed throughout coastal Australia and further inland from Darwin and Cape York to Victoria and southern South Australia as well as Tasmania. The White-bellied Sea-eagle also inhabits areas



along rivers and near lakes and dams. This species has a white underside and head, and dark grey wings and back. The main prey items for the White-bellied Sea-eagle include aquatic or marine animals (fish, turtles) however this species will also prey upon terrestrial vertebrates such as snakes and small birds. The female is larger than the male (84cm compared with 76cm) however there is no colour discrepancy between the two sexes.

#### **Whistling Kite *Haliastur sphenurus* (Ma)**

The Whistling Kite is a medium-sized raptor with light-brown plumage with pale streaks on the chest, head and back and pale spots on wing upper-parts. It is further distinguished by its prominent black flight feathers, soaring flight and its whistling call. This species feeds on carrion, mammals, reptiles and fish and its preferred habitat includes open forest and woodlands, often associated with lakes and timbered watercourses. It is also frequently recorded in areas where carrion is common, such as farms and rubbish dumps. Nests are usually sited high up in tall trees, often adjoining water bodies. The Whistling Kite is common and widespread in suitable habitat throughout mainland Australia. Although this species has prospered in some areas as a result of urban and rural development, it is threatened by habitat loss associated with the clearance of woodland vegetation.

#### **Square-tailed Kite *Lophoictinia isura* (L, VU)**

The Square-tailed Kite is a predominantly rufous raptor with a white face and black streaks extending from the crown. The rump and central upper tail coverts are blackish with grey-brown barring. The underparts are predominantly grey-brown with black tips on the grey, square-tipped tail and wing edges. A key character in flight is the long fingered, upswept wings with a large white patch at the 'palm' of these 'fingers'. Square-tailed Kites range through coastal and subcoastal areas from south-western to northern Australia, and along the eastern seaboard to Victoria. Generally, this species is found in dry woodlands and open forests where it hunts perching birds and insects from canopy foliage. Key threats to this species include habitat clearance and grazing of habitats resulting in a reduction in nesting and feeding resources.

#### **Grey Falcon *Falco hypoleucos* (L, EN)**

The Grey Falcon is a medium-sized and compact bird, which is generally pale in colour with a heavy, thick-set, deep-chested appearance. Upperparts are uniform light grey, shading to blackish at the extremities, resulting in dark wing tips. The tail has narrow blackish bars. The throat and cheeks are white, and the rest of the underbody is pale grey. Grey Falcons sparsely populate arid and semi-arid inland areas, with the occasional vagrant south or east of the Great Dividing Range. The breeding range has contracted since the 1950s with most breeding now confined to arid parts of the range, and it is believed that less than 5000 individuals are left in the wild. This species is usually restricted to shrubland, grassland and wooded watercourses of arid and semi-arid regions, although it is occasionally found in open woodlands near the coast. Grey Falcons primarily prey



upon on birds, especially parrots and pigeons, though reptiles and mammals are also taken. The falcons utilises old nests of other birds of prey and ravens, usually high in live eucalypt trees near water or a watercourse. Key threats to this species include grazing and clearance of arid and semi-arid zone rangelands, secondary poisoning through mouse and rabbit control programs, and stealing of eggs and young for collectors and falconry.

#### **Black Falcon *Falco subniger* (VU)**

The Black Falcon is the largest of the Australian falcons. It has a slim body and is uniformly dark brown to black, with a pale marking around the throat. This species has relatively short feathered legs, and females are larger than males. In flight, the broad wings taper to a fine point (as with most falcons) and the long narrow tail has a square end. The Black Falcon is endemic to Australia and sparsely populates inland area across northern, eastern, southern and central Australia. This species generally habits tree-lined watercourses and isolated woodlands, mainly in arid and semi-arid areas, where it preys upon birds, small mammals, insects and reptiles. Black Falcons are also known to steal prey from other raptors. Habitat clearance and fragmentation resulting in reduced prey opportunities is a key threatening process for this species. Additionally, secondary poisoning through mouse and rabbit control programs threatens this species.

#### **Nankeen Kestrel *Falco cenchroides* (Ma)**

The female Nankeen Kestrel is slightly larger than the male (35cm compared with 31cm) and this species is distributed throughout Australia. The Nankeen Kestrel occupies many habitats, including open woodlands, cleared areas (roadside reserves and grazing land) and may also be present in major cities. Major threats applicable to the Nankeen Kestrel are roadside deaths and habitat disturbance or destruction. The Nankeen Kestrel can often be seen searching for small mammal or bird prey along roadsides. It has been suggested that this species is one of the most frequently recorded birds in Australia in bird surveys.

#### **Southern Boobook *Ninox novaeseelandiae* (Ma)**

The Southern Boobook, a nocturnal, medium-sized “hawk-owl” (30 - 35cm) is distributed widely throughout mainland Australia and Tasmania. This species roosts and nests in old tree hollows in woodlands and forests, hunting prey that inhabits lower vegetation storeys in these habitat areas such as small mammals. Threats to the Southern Boobook include alteration of habitat through destruction and fragmentation, and secondary poisoning via consumption of prey that may have ingested poisonous bait.



### **Barking Owl *Ninox connivens* (L, EN)**

The Barking Owl (38 - 43cm) is a medium-sized owl that inhabits eucalyptus woodlands, woodlands adjacent to watercourses, damp woodlands and open forests. The Barking Owl is distributed throughout Australia except in arid regions and Tasmania, however this species is generally considered to be uncommon in southern regions as opposed to the northern regions of Australia. Threats to the Barking Owl include destruction of habitat that it and its prey rely on, and fragmentation of these habitat regions. Fire may be a cause of habitat destruction as well as human activities. Barking Owls may also be at risk if they consume prey that has ingested a poisonous substance.

### **Powerful Owl *Ninox strenua* (L, VU)**

Powerful Owls reach nearly 70cm in length. They vary from grey-brown to dark brown, with white markings and may appear bluish in dull light. Their back and wings are irregularly barred, also in creamy white. They have bright yellow eyes with prominent eyebrows and a powerful, bluish horn beak. The tail is also broadly barred brown and white. Powerful owls are present in south-eastern Australia, in forests along the Great Dividing Range through to the coast. They typically inhabit wet and hilly sclerophyll forest with dense gullies adjacent to more open forest, but are also found in smaller, drier forests, provided that there are some large tree hollows and an adequate supply of prey. Powerful Owls are nocturnal and hunt from perches, mainly on slow-moving arboreal mammals and large birds that are caught at their roosts. They will occasionally take insects and prey on the ground. Birds live in pairs, and breed within large tree hollows or in broken tops of Eucalyptus trees. The key threat to this species is habitat clearance.

### **Masked Owl *Tyto novaehollandiae* (L, EN)**

The Masked Owl (38 - 50cm) is found from Cairns in northern Queensland to Tasmania, incorporating south-western Australia and north-western Australia. The Masked Owl inhabits dry sclerophyll forests, primarily eucalypt forests and can occur up to 1100m above sea level. Threats to the Masked Owl include loss of old trees due to habitat disturbance, clearance and fragmentation (loss of roosting and nesting sites) and the subsequent loss of prey that may occur due to such habitat disturbance. Secondary poisoning may also occur to the Masked Owl due to consumption of rodent prey that may have ingested rodenticide.

### **Sooty Owl *Tyto tenebricosa* (L, VU)**

The Sooty Owl is medium-sized with dark soot-grey colouration, large dark eyes set in a heart-shaped grey facial disc, with fine white spotting above and below, and a pale belly. This species is found in coastal ranges from south Victoria to south-eastern Queensland, as well as a small area in northern Queensland. They occur in rainforest, including dry rainforest sub-tropical and warm



temperate rainforest, and moist eucalypt forests. They roost in tall forest tree hollows, and hunt for small ground and tree-dwelling mammals. Threatening processes for this species are clearing of habitat and hollow-bearing trees, reduced prey due to grazing and burning regimes, and secondary poisoning from rodenticides.

#### **Turquoise Parrot *Neophema pulchella* (L, NT)**

The Turquoise Parrot is an uncommon and relatively small parrot with the males having a distinctive turquoise-blue crown, face, and shoulders, grading to deep blue at the flight feathers. The upperparts are bright green with a chestnut-red shoulder-patch and the underparts are orange to yellow. The female is generally duller, has whitish lobes and no shoulder-patch. They feed on seeds, grasses and herbaceous plants within their preferred habitats of coastal scrublands, open forest timbered grasslands from south-eastern Queensland to northern Victoria. Threatening processes for this species are degradation and clearance of habitat, loss of hollow-bearing trees, predation by foxes and cats, and illegal trapping.

#### **Blue-winged Parrot *Neophema chrysostoma* (Ma)**

The Blue-winged Parrot is a small parrot which is distinguished by its olive-green back and rump and yellow abdomen and underside of the tail. This is contrasted by the deep blue upperside of the wings, and a blue band above the bill that does not extend to the eyes. This species is found throughout most of Tasmania, islands in the Bass Strait, and south-eastern Australia from south-western Queensland to eastern South Australia. The Blue-winged Parrot is widespread in most types of open country, including coastal sand-dunes and forages mainly on the ground for seeds of grasses and herbaceous plants. The main threatening process for this species is habitat destruction and clearance.

#### **Swift Parrot *Lathamus discolor* (EN, L, EN, Ma)**

The Swift Parrot is a slender bird with a narrow tail that is predominantly green with red markings around the face, shoulders and underwings. Breeding only in Tasmania, the Swift Parrot migrates to the mainland every autumn where it winters mostly in the nectar-rich box-ironbark forests and woodlands of Victoria, New South Wales and southern Queensland. It is estimated that fewer than 1300 breeding pairs now exist and this number continues to decline. Major threats to this species include clearance of both its wintering habitat and its breeding habitat, and competition for breeding hollows.

#### **Dollarbird *Eurystomus orientalis* (Ma)**

Dollarbirds visit Australia each year from New Guinea to breed. They are stocky birds, predominantly dark brown on the upperparts, grading to dark blue-green on the back and wing



coverts. They are paler on the front, though with the same brown to blue-green gradation. Undertail coverts are light, and the throat and undertail glossed with bright blue. The flight feathers of the wing and tail are dark blue. Their short, thick-set bill is distinctly orange-red, as are their legs. In flight, they reveal pale blue coin-shaped patches towards the tips of its wings. During breeding displays, pairs of Dollarbirds are often seen flying in a characteristic rolling flight. In Australia, Dollarbirds inhabits open wooded areas, edges of forests, or watercourses and wetlands, generally in areas where mature, hollow-bearing trees suitable for nesting exist. Dollarbirds feed almost exclusively on flying insects. They locate prey items from a perched position and then capture the prey in flight, before returning to the same perch. Threats to this species include deforestation and removal of hollow bearing trees.

#### **Azure Kingfisher *Alcedo azurea* (NT)**

The Azure Kingfisher is a small bird with a long black bill and rich dark blue plumage on its head, wings and upper body. A pale spot on either side of the neck, a pale throat and rufous underparts further distinguishes it. This species favours tree-lined watercourses, lakes and swamps and is also found in coastal areas including well-vegetated tidal creeks and estuaries. It feeds on small fish, crustaceans, insects and frogs, and nests in a chamber at the end of a burrow usually dug on the banks of steep-sided creeks or rivers. The Azure Kingfisher is found in northern Australia east of the Kimberlies, through eastern Queensland and throughout the Murray-Darling Basin in the south-eastern states. Less commonly, it is observed in north-western Tasmania and in South Australia's Mt. Lofty Ranges. This species is threatened by habitat loss and fragmentation through vegetation clearance and changes in flow regimes in the rivers and streams within its range.

#### **Red-backed Kingfisher *Todiramphus pyrrhopygia* (NT)**

The red backed kingfisher is a relatively small kingfisher which is predominantly white on the front and blue-green on the back. It is easily characterised by a rufous or brownish-red patch on its lower back and rump, and a black stripe running through its eyes to the back of its head. The red-backed Kingfisher has erectile crown feathers which are streaked white and grey-green. The red-backed kingfisher has adapted to the arid areas of Australia's interior, and thus is found over most of Australia except in areas of particularly high rainfall. It occurs in eucalypt woodlands, scrub and tussock grasslands, and areas with scattered trees where it hunts insects and small reptiles from the ground. The key threatening process for this species is habitat clearance and fragmentation resulting in reduced prey opportunities.

#### **Sacred Kingfisher *Todiramphus sanctus* (Ma)**

The Sacred Kingfisher is a medium-sized kingfisher with a turquoise blue head, back and wings and off-white underparts and neck. It also has a prominent black streak extending from its beak, through the eye to the back of the neck. They primarily forage on land, feeding on reptiles, insects,



crustaceans and less frequently, fish. The preferred habitat of the Sacred Kingfisher is open forests and woodlands often near water. They are widely distributed throughout Australia, although they are less commonly encountered in Tasmania and are considered to be passage migrants through central Australia. The Sacred Kingfisher is threatened by loss of habitat through vegetation clearance.

#### **Rainbow Bee-eater *Merops ornatus* (Mi, Ma)**

The Rainbow Bee-eater is small bird known for its striking multi-coloured plumage and graceful, acrobatic flight. It has a bluish-green back, head and underparts, a pale orange throat and a black tail. Two extended central tail feathers (or tail wires) are a distinguishing feature of mature birds. It has a black streak running from its long curved beak, through its eye to the back of the head. The Rainbow Bee-eater feeds on bees, wasps, dragonflies and other insects, which are captured on the wing. This species nests in chambers at the end of long, narrow tunnels that they dig in steep creek banks or hillsides. The Rainbow Bee-eater is found throughout the year in northern Australia, and is commonly seen during spring and summer in southern mainland Australia as a breeding migrant. This species is threatened by predation by foxes and dogs, which are known to dig out the nesting burrows.

#### **White-throated Nightjar *Eurostopodus mystacalis* (Ma)**

The White-throated Nightjar is the largest of Australia's nightjars and is distinguished by its dark grey plumage interspersed with black, sandy and off-white spots on its upperparts. It has a white crescent-shaped mark on either side of the neck and small white spots on its wing primaries. A nocturnal bird, it feeds on insects generally captured on the wing close to the ground. The preferred habitat of the White-throated Nightjar is forest and woodland communities, typically with a dense cover of leaf litter, branches and rocks. This species nests on the ground where it lays a single egg, usually in a rudimentary nest of leaf litter. The White-throated Nightjar is found on the east coast of Australia from Cape York to the central Victorian coast and its distribution extends inland to the Great Dividing Range. It is threatened by habitat loss, particularly vegetation clearance and habitat modification as a result of domestic stock and rabbit grazing. As a ground nester, the White-throated Nightjar is particularly vulnerable to predation from foxes and cats.

#### **White-throated Needletail *Hirundapus caudacutus* (Mi, Ma)**

The White-throated Needletail is Australia's largest swift with a wingspan of up to 500mm. Its plumage is predominantly dark grey-brown, while its throat, forehead and underside of its short, square tail are white. The White-throated Needletail breeds in southern and eastern Asia and migrates to Australia during the summer months where it is observed in greatest numbers in the east and south-east of the continent. Feeding on insects captured on the wing, this species is often



seen above cities and timbered hill slopes and occasionally roosts in trees. It is considered that there are no significant threats to this species in Australia.

**Fork-tailed Swift *Apus pacificus* (Mi, Ma)**

The Fork-tailed Swift is a predominantly black migratory bird with a narrow, cylindrical body and a long forked-tail. It has a pale throat and a white rump and is usually observed in large flocks, often before or during thunderstorm activity. The Fork-tailed Swift breeds in southern and eastern Asia and migrates to Australia during spring where it is commonly observed in Western and South Australia. Although large flocks are sometimes recorded in the eastern states and Tasmania, it is less frequently observed in these areas. This species, which has never been observed roosting in Australia, feeds exclusively on insects, which it captures and eats on the wing. There are no significant threats to this species in Australia.

**Pallid Cuckoo *Cuculus pallidus* (Ma)**

The Pallid Cuckoo is a large cuckoo (30 - 33cm) that is distributed throughout the Australian mainland and is a frequent visitor to Tasmania. The Pallid Cuckoo occupies a variety of habitats, although the presence of this species in forest environments is uncommon compared with other habitat types. Threats to this species include habitat destruction, change and fragmentation. Feral carnivores that are present throughout Australia may also pose a threat to the Pallid Cuckoo. Pallid cuckoos parasitise nests created by other bird species and eggs may appear similar to those laid by the host bird.

**Fan-tailed Cuckoo *Cacomantis flabelliformis* (Ma)**

The Fan-tailed Cuckoo is blue-grey on the head and upperparts with a grey chin and light cinnamon-rufous underparts. This is a forest species, but can also be found in habitats such as heath, alpine woodland and scrublands along eastern Australia, extending to south-eastern South Australia and within south-western Western Australia. The Fan-tailed Cuckoo prefers hairy caterpillars in its diet but will also eat a variety of other insects and their larvae. The main threatening process for this species is habitat destruction and clearance.

**Black-eared Cuckoo *Chrysococcyx osculans* (NT, Ma)**

The Black-eared Cuckoo is a predominantly brown-grey bird with a faint olive-bronze metallic sheen on the saddle of the back. They have pale rumps and underparts, and lack the distinctive barring which is common on other bronze-cuckoos, except on the outer feathers of the tail. The face is creamy-white, with a white eyebrow widening towards the neck, and below that an obvious black eye-stripe. Black-eared cuckoos are widespread throughout mainland Australia in drier open woodlands and shrublands. They feed on insects on the ground. Being a parasitic breeder, they



utilise the nests of other birds such as thornbills and scrubwrens. The key threatening process for this species is habitat clearance.

#### **Horsfield's Bronze Cuckoo *Chrysococcyx basalis* (Ma)**

The Horsfield's Bronze Cuckoo is a small bird with olive-brown upperparts with pale scaling and a bronze to green sheen on the back and upper tail, and a prominent dark-brown eyestripe. The underparts are white to cream with fine dark mottling on the throat and dull bronze barring on the sides of the breast and flanks. This species prefers wooded habitats with a range of understoreys from grasses to shrubs or heath, and is widespread throughout Australia except in the most arid areas. The Horsfield's Bronze Cuckoo feeds mostly on insects and their larvae, especially hairy caterpillars, although it may sometimes eat plant matter. The main threatening process for this species is habitat destruction and clearance.

#### **Shining Bronze-Cuckoo *Chrysococcyx lucidus* (Ma)**

The Shining Bronze-Cuckoo (17 - 18cm) has iridescent feathers and is smaller than the Pallid Cuckoo. This species is also notable by the striking green feathers on its wings, unlike other Australian cuckoo species. The Shining Bronze-Cuckoo is distributed in Australia from far-northern Queensland to Victoria and also in south-western Western Australia. The Shining Bronze-Cuckoo inhabits forests and woodland areas, and thus the threats applicable to this species are related to the alteration of habitat through clearance and fragmentation of vegetation.

#### **Tree Martin *Hirundo nigricans* (Ma)**

The Tree Martin is a medium-sized member of the swallow family and is distinguished by its glossy black wings, head, back and square tail and its off-white rump. Their preferred habitat is eucalypt open woodland communities, often near water where it hunts for insects on the wing. Tree Martins nest in tree hollows, particularly along the banks of water courses, lakes and other wetlands. They are a migratory species, moving from northern Australia to the southern parts to breed in winter and spring, and are widespread and often common throughout mainland Australia and Tasmania. This species is threatened by habitat loss, particularly clearance of old growth trees with hollows and competition for nesting hollows from European honeybees.

#### **Rufous Fantail *Rhipidura rufifrons* (Mi, Ma)**

The Rufous Fantail is a small insectivorous bird with grey-brown upperparts and a white throat and upper chest. Its most distinguishing features are its bright rufous rump, upper tail and eyebrow and conspicuous white-tipped, fan-like tail. The Rufous Fantail is found in wet coastal forest and woodland habitats of northern and eastern Australia and is only occasionally observed in South Australia and Tasmania. Threats to this species include habitat loss and fragmentation as a result of



vegetation clearance for agriculture and urban development, degradation associated with livestock and rabbit grazing and predation by foxes and cats.

#### **Satin Flycatcher *Myiagra cyanoleuca* (Mi, Ma)**

The Satin Flycatcher is a small insectivorous bird distinguished by its loud strident call and raised crown feathers. Males have a blue-black head, back, wings and tail while in the female, these parts are a paler blue-grey. Underparts for both sexes are white with females further distinguished by a rich buff throat and upper breast, which is black in males. The preferred habitat of the Satin Flycatcher is forest and tall woodland communities, particularly moist, densely vegetated gullies. It is distributed along the eastern coast and inland to the Great Dividing Range, extending from Cape York through to south-west Victoria and Tasmania. Habitat loss and fragmentation as a result of vegetation clearance, together with predation by foxes and cats, pose a threat to this species.

#### **Black-faced Monarch *Monarcha melanopsis* (Mi, Ma)**

A conspicuous and distinctive flycatcher, the Black-faced Monarch is found in rainforests, eucalypt forests and coastal scrubs. They are predominantly blue/grey birds with black 'masks' covering their forehead and chins, and a rufous belly to under-tail. They are relatively conspicuous birds because they are slow moving and sedate. They are found throughout eastern Australia, from Cape York south to the Dandenong Ranges of Victoria predominantly in rainforest, wet broad-leaved forests and denser eucalypt forests in damp gullies, mangroves and sometimes in open woodlands where they feed insects and spiders, which they catch in flight. Their nests are cup shaped structures of thick moss layered on stronger plant material. Key threats to this species include habitat clearance.

#### **Flame Robin *Petroica phoenicea* (Ma)**

The male Flame Robin is a small red-breasted bird with a red throat and small white cap on the forehead, while the female is greyish-brown with creamy streaks in the wings. This insect eating species is found in south-eastern Australia extending to south-eastern South Australia, Kangaroo Island, Tasmania and Bass Strait Islands. The Flame Robin prefers dry forest and woodland during breeding to open country after breeding. The main threatening process for this species is habitat destruction and clearance.

#### **Pink Robin *Petroica rodinogaster* (Ma)**

The Pink Robin (13cm) is colourfully distinct from other robin species. Distribution of this species is limited to Victoria and Tasmania. Pink Robins inhabit a range of areas, including forests, woodlands and scrub dominated by tea-tree. The Pink Robin is the only 'red' robin without white tail-markings. This species feeds on various invertebrates including insects and spiders. As with all



animals that inhabit vegetation, the major threats to the Pink Robin are clearance and fragmentation of vegetation habitat areas and subsequent destruction of feeding and breeding grounds.

**Hooded Robin *Melanodryas cucullata* (L, NT)**

The Hooded Robin (14 - 17cm) is not specifically common to many areas in Australia, however it is known to be distributed throughout Australia excluding far-northern Queensland and Tasmania. The Hooded Robin inhabits dry woodland, mallee and mulga regions throughout Australia. This species is thought to prefer habitat regions that do not include extremely dense vegetation. Threats to the Hooded Robin include clearance of habitat and subsequent fragmentation and modification of these regions. Loss of roosting, nesting and feeding sites may ensue.

**Black-faced Cuckoo-shrike *Coracina novaehollandiae* (Ma)**

The Black-faced Cuckoo-shrike is a medium sized bird that has a black face and throat, blue-grey back, wings and tail, and white underparts. This species is widespread throughout Australia within open forests and savannahs, and feeds on insects and other invertebrates as well as some fruits and seeds. The main threatening process for this species is habitat destructions and clearance.

**Cicadabird *Coracina tenuirostris* (Ma)**

The Cicadabird is a Triller (small cuckoo-shrike) which is also known as Jardine Triller and Slender-billed Cicadabird. The males are predominantly dark grey, while the females have brown uppersides with pale eyebrows and buff and finely-barred rufous undersides. This species prefers a range of forest habitats within northern and eastern Australia and feeds on adult and larvae insects as well as fruit and seeds. The main threatening process for this species is habitat destruction and clearance.

**Spotted Quail-thrush *Cinclosoma punctatum* (NT)**

The Spotted Quail-thrush is a medium-sized, ground dwelling bird with a very high-pitched contact call. Both male and female of this species have a white eyebrow and grey-brown upperparts with thick black streaks giving a mottled appearance. Males have a black face and throat and a white patch below and behind each eye. Females have a buff-white throat with a dull orange patch. Its preferred habitat is sclerophyll forest, woodland and scrub communities, particularly where there is a dense cover of leaf litter and a tussock grass or low shrub understorey. The Spotted Quail-thrush is found in suitable habitat in south-east Queensland, eastern New South Wales and most parts of Victoria. Threats to this species include habitat destruction and fragmentation as a result of vegetation clearance for agriculture and urban development. As a ground nester, it is also susceptible to predation by foxes and cats.



### **Grey-crowned Babbler *Pomatostomus temporalis* (L, EN)**

The Grey-crowned Babbler is the largest of the four Australian babblers, reaching 30cm in length. It is distinguished by its grey crown-stripe, long heavy scimitar-shaped bill, and broad white eyebrow. It has dark greyish-brown upperparts, paler brown underparts grading to a whitish throat, and a dark band passing from the bill through the eye creating a masked look. This species inhabits open Box-Gum woodlands and Box-Cypress-pine woodlands from the west of Western Australia, through northern and eastern Australia, to the south-eastern tip of South Australia. It is also present in a small isolated area of northern South Australia. The Grey-crowned Babbler feeds on invertebrates, either by foraging on the trunks and branches of eucalypts and other woodland trees or on the ground, digging and probing amongst litter and tussock grasses. The threatening processes for this species are clearing of woodland remnants, heavy grazing, and removal of coarse, woody debris within woodland remnants.

### **Chestnut-rumped Heathwren *Calamanthus pyrrhopygius* (L, VU)**

The Chestnut-rumped Heathwren, also known as Chestnut-tailed Heathwren (*Hylacola pyrrhopygia*) and Chestnut-rumped Hylacola (*Hylacola pyrrhopygia*), is a small scrubwren-like bird which has brown upperparts, greyish head, and a chestnut rump; the underparts are whitish with dark streaks on the throat and breast. This species is insectivorous and is found within woodland thickets, low scrub and open heath from north-eastern New South Wales to south-eastern South Australia. The main threatening process for this species is habitat destruction, clearance, degradation, and fragmentation.

### **Speckled Warbler *Pyrrholaemus sagittatus* (L, VU)**

The Speckled Warbler (12cm) is a small ground-feeding bird that is found from south-eastern Queensland to Victoria. The Speckled Warbler may feed with other ground-feeding birds. This species is known to inhabit open woodland environments, where grassy tussocks, rocks and leaf litter are available for harbouring food sources such as small invertebrates. The Speckled Warbler nests amongst tussock grass and on top of rocks covered with moss, rather than higher in tree canopies.

### **Clamorous Reed Warbler *Acrocephalus stentoreus* (Mi, Ma)**

The Clamorous Reed Warbler is a small, insectivorous bird with streaked olive-brown upperparts, buff cream below and a pale cream eyebrow and throat. Perhaps its most distinguishing characteristic is its rich, liquid and sometimes metallic call during which it puffs its throat and raises its crown feathers. It is found in reed beds, (particularly stands of *Phragmites* and *Typha*), tall grass or dense stands of river red gum saplings usually associated with watercourses, lakes and other wetlands. The Clamorous Reed Warbler is found in suitable habitat throughout Australia. It is



sedentary in northern Australia, with individuals migrating to southern parts of the continent to breed in spring. Threats to this species include habitat loss and modification of wetland and riparian environments as a result of vegetation clearance and changes to flow regimes.

#### **Brown Treecreeper *Climacteris picumnus* (NT)**

The Brown Treecreeper (16 - 18cm) inhabits eucalypt woodlands from the Cape York Peninsula in Queensland to south-eastern Australia, excluding Tasmania. This species may nest in tree hollows and consumes a variety of invertebrates from trees (alive or dead). Major threats to the Brown Treecreeper include habitat destruction and fragmentation of large habitat areas into smaller habitat areas. It is unlikely that the Brown Treecreeper will reinhabit fragmented habitat if lost to these areas. The use of tree hollows for nesting suggests that the presence of relatively older eucalypt tree may be needed to provide appropriate nesting facilities. Clearance or degradation of habitat would probably include clearance of suitable nesting trees.

#### **Silvereye *Zosterops lateralis* (Ma)**

Silvereyes are found in many habitats throughout south-western and south-eastern mainland Australia and also Tasmania. This species is found in 4 forms - the Barrier Reef form, the south-east form, the Tasmanian form and the western form. Individual birds reach up to 12cm in length. Silvereyes are known to disperse seeds produced by many plants, including weedy species. They have been located in dry woodlands, sclerophyll forests and land that has been significantly altered, for example, urban environments. Threats that are relevant to Silvereyes include alteration of habitats and subsequent loss of nesting and feeding sites.

#### **Black-chinned Honeyeater *Meliphreptus gularis* (NT)**

The Black-chinned Honeyeater (15 - 17cm) is found in south-eastern Australia in dry eucalypt woodlands, where rainfall is between 400 and 700mm per annum. Woodlands containing the Black-chinned Honeyeater also typically contain ironbark and box eucalypts. The Black-chinned Honeyeater usually makes suspended nests in the woodlands that it inhabits. The major threats facing the Black-chinned Honeyeater are destruction of woodland habitat and fragmentation of large areas of habitat into smaller areas that may not provide adequate resources.

#### **Painted Honeyeater *Grantiella picta* (L, VU)**

The Painted Honeyeater is a small yellow-winged bird which is black above, white below, and has a distinctive pink bill with a dark tip. This species inhabits Boree, Brigalow, and Box-Gum Woodlands and Box-Ironbark Forests from north Queensland to the southeastern tip of South Australia. The Painted Honeyeater is a specialist feeder preferring the fruits of mistletoes (especially the genus *Amyema*) growing on woodland eucalypts and acacias, with insects and



nectar from mistletoe or eucalypts occasionally eaten. The main threatening process for this species is clearing, thinning and degradation of woodlands and forests supporting mistletoe.

**Regent Honeyeater *Anthochaera Phrygia* (EN, L, CR, Mi)**

The Regent Honeyeater has a black head and black back with contrasting bright yellow markings across its wings and tail. Its front is pale yellow to white with black scales. The male has a distinct pale pink patch of bare skin extending from its beak to around its eye. This patch is much smaller in the female and present only beneath the eye.

The Regent Honeyeater is a bird was once common in the woodlands of eastern Australia, particularly along the drier inland slopes of the Great Dividing Range. Its range is now significantly reduced and its population is fragmented. The only known remaining breeding sites are in north-eastern Victoria and the central coast of New South Wales. Regent Honeyeaters feed on nectar and insects within box-ironbark eucalypt forests. When they are not breeding, birds roam widely in search of these unpredictable food sources. Major threats to this species include the historic and continued clearance of its specific habitat (box-ironbark forest) and further population fragmentation.

Whilst this species was not detected during the current assessment, it is known to occur within areas of Toolangi North and Toolangi South LU (Steve Smith, DSE, *pers. comm.*). This species also has the potential to occur within other areas of remnant vegetation throughout the survey corridors.

**Helmeted Honeyeater *Lichenostomus melanops cassidix* (EN, L, CR, Mi)**

The Helmeted Honeyeater (a race of the Yellow-tufted Honeyeater) is an olive-green backed, olive-yellow bird with bright yellow face markings contrasting with black feathers which extend from their bill over their eyes and widening across their ear converts. The bright yellow forehead feathers are tufted. This race has a tiny range, restricted to a small pocket of sclerophyllous woodland with shrubby understorey to the east of Melbourne (just south of Yellingbo). Major threats to this race include the tiny current population size, habitat damage, drainage of swamps for agriculture (since these birds have a preference for habitat adjacent water) and competition with dominate species such as Bell Miners.

**Richard's Pipit *Anthus novaeseelandiae* (Ma)**

Richard's Pipit is a small, insectivorous, ground-dwelling bird (16 - 18cm) that inhabits open heaths and shrublands and open woodlands. This species nests in ground depressions that are sheltered by tussock grass. Richard's Pipit is distributed throughout Australia and also in New Guinea, New Zealand, Africa and Asia. This species is known to colonise recently cleared ground.



However, Richard's Pipit is still at risk from further vegetation clearance, as nesting and feeding areas will be reduced by further clearance of vegetation.

**Diamond Firetail *Stagonopleura guttata* (L, VU)**

The Diamond Firetail is a small red-rumped finch with red eyes and bright red bill, grey head, white breast with black band, ash-brown wings, and black flanks with white spots. This distinctive species inhabits woodland and open forest, including mallee, as well as riparian areas within south-eastern Australia from Dawson River, Queensland to Eyre Peninsula, South Australia. The Diamond Firetail feeds exclusively on the ground and has a diet consisting of ripe and partly-ripe grass and herb seeds, green leaves, and insects (especially in the breeding season). The main threatening processes for this species are habitat clearing and fragmentation, invasion of weeds, modification and destruction of shrubs for nesting, frequent fires, and predation of eggs and nestlings by increased populations of native predators.

**Little Raven *Corvus mellori* (Ma)**

The Little Raven is found throughout south-eastern Australia excluding Tasmania. Individual Little Ravens can reach up to 50cm in length. This species is known to occupy woodland habitat, including dry sclerophyll forests. The Little Raven may also frequent disturbed or human occupied regions. The Little Raven is slightly smaller than the Australian Raven (52cm) and does not share the loose feathers around the throat that the Australian Raven possess. This species is primarily insectivorous, however it will consume other matter depending on what is available. Major threats to the Little Raven include destruction, fragmentation and alteration of habitat.