

Appendix C - Threatened Species Assessment (ELA, 2014)

Appendix B – Threatened Species Recorded Within the RAAF Base Darwin F-35 Study Area (adopted from ELA 2014).

Class	Scientific Name	Common Name	EPBC	Habitat
Amphibia	<i>Uperoleia daviesae</i>	Howard Springs Toadlet		The species is known from a small number of records within sandy inundated areas in the Howard and Elizabeth River catchments (Ward 2006). Little is known of the species' ecology.
Aves	<i>Stercorarius parasiticus</i>	Arctic Jaeger	Migratory	
Aves	<i>Limnodromus semipalmatus</i>	Asian Dowitcher	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Rostratula australis</i> (= <i>R. benghalensis</i>)	Australian Painted Snipe	Migratory/en dangered	The Australian Painted Snipe species prefers fringes of shallow terrestrial freshwater, swamps, dams and nearby marshy areas where there is a cover of grasses, lignum, low scrub or open timber (OEH 2013). An important population exists within Shoal Bay (near Base Darwin).
Aves	<i>Calidris bairdii</i>	Baird's Sandpiper	Migratory	
Aves	<i>Hirundo rustica</i>	Barn Swallow	Migratory	This species usually occupies open coastal and urban landscapes in Australia. There have been several observations of the Barn Swallow around RAAF Darwin and one observation near RAAF Base Tindal (ALA 2013). This species has not been observed in the Ross River estuary, located south east of RAAF Base Townsville (DMR 2009). The nearest observation is at Paluma Range National Park, north west of Townsville (ALA 2013).
Aves	<i>Limosa lapponica</i>	Bar-tailed Godwit	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Sterna sumatrana</i>	Black-naped Tern	Migratory	
Aves	<i>Limosa limosa</i>	Black-tailed Godwit	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.

Class	Scientific Name	Common Name	EPBC	Habitat
Aves	<i>Onychoprion anaethetus</i>	Bridled Tern	Migratory	
Aves	<i>Limicola falcinellus</i>	Broad-billed Sandpiper	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Sula leucogaster</i>	Brown Booby	Migratory	
Aves	<i>Charadrius asiaticus</i>	Caspian Plover	Migratory	
Aves	<i>Hydroprogne caspia</i>	Caspian Tern	Migratory	
Aves	<i>Ardea ibis</i>	Cattle Egret	Migratory	The Cattle Egret is widespread and common (SEWPaC 2013c). Principal breeding sites and isolated minor breeding colonies have been recorded from Newcastle, NSW to Ayr, Qld and the non-breeding range extends across the Northern Territory and North Qld and some inland areas (SEWPaC 2013c). It has been regularly observed in the Hunter Estuary (Herbert 2007) and recorded near RAAF Base Townsville (SKM 2009c).
Aves	<i>Fregata andrewsi</i>	Christmas Island Frigatebird	Migratory	
Aves	<i>Tringa nebularia</i>	Common Greenshank	Migratory	The Common Greenshank occurs in all types of wetlands and has the widest distribution of any shorebird in Australia (Higgins & Davies 1996). The species is a usual summer migrant in the Hunter region which is mostly confined to the saline parts of the Hunter estuary (Herbert 2007). Observations of this species have been recorded within proximity to the RAAF Base Darwin, RAAF Base Tindal and RAAF Townsville (ALA 2013).
Aves	<i>Anous stolidus</i>	Common Noddy	Migratory	
Aves	<i>Tringa totanus</i>	Common Redshank	Migratory	
Aves	<i>Actitis hypoleucos</i>	Common Sandpiper	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Sterna hirundo</i>	Common Tern	Migratory	
Aves	<i>Calidris ferruginea</i>	Curlew Sandpiper	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.

Class	Scientific Name	Common Name	EPBC	Habitat
Aves	<i>Numenius madagascariensis</i>	eastern curlew		The Eastern Curlew is predominately confined to coastal habitats around Australia, such as intertidal coastal mudflats, coastal lagoons, sandy spits. The majority of international important sites within Australia occur in Queensland. The largest population is observed at Great Sandy Strait yet Moreton Bay supports birds during southern and northern migration and during breeding and non-breeding periods. Most birds along the east coast will depart Australia between late February and mid March-April (Marchant and Higgins 1993).
Aves	<i>Ardea modesta</i>	Eastern Great Egret	Migratory	
Aves	<i>Pandion cristatus</i>	Eastern Osprey	Migratory	Associated with waterbodies including coastal waters, inlets, lakes, estuaries, beaches, offshore islands and sometimes along inland rivers (Schodde and Tidemann 1986). Osprey may nest on the ground, on sea cliffs or in trees. Osprey generally prefer emergent trees, often dead or partly dead with a broken off crown.
Aves	<i>Egretta sacra</i>	Eastern Reef Egret	Migratory	
Aves	<i>Apus pacificus</i>	Fork-tailed Swift	Migratory	
Aves	<i>Anas querquedula</i>	Garganey	Migratory	
Aves	<i>Plegadis falcinellus</i>	Glossy Ibis	Migratory	
Aves	<i>Erythrura gouldiae</i>	Gouldian Finch	Migratory and Endangered	This species has a patchy distribution within northern Australia (SEWPaC 2013c). There are five populations with significant numbers occurring in the Northern Territory which are typically associated with core habitat that includes annual and perennial grasses (<i>Sorghum</i> spp.) near permanent water bodies (SEWPaC 2013c). This species may occur within the vicinity of the RAAF DAR (AECOM 2009).
Class	Scientific Name	Common Name	EPBC	Habitat
Aves	<i>Fregata minor</i>	Great Frigatebird	Migratory	
Aves	<i>Calidris tenuirostris</i>	Great Knot	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Charadrius leschenaultii</i>	Greater Sand Plover	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.

Class	Scientific Name	Common Name	EPBC	Habitat
Aves	<i>Falco hypoleucos</i>	Grey Falcon		Distribution is largely confined to arid and semi-arid inland drainage systems with an annual rainfall less than 500 mm. This species usually occurs around vegetated lowland plains with tree-lined watercourses. Nesting tends to occur in the tallest trees along the watercourse, typically River Red Gum (<i>Eucalyptus Camaldulensis</i>) (Garnett and Crowley 2000). This species occurs at very low densities on inland drainage systems in arid and semi-arid Australia. Individuals forage on lowland plains in lightly-timbered woodland particularly Acacia shrublands, and are highly mobile, commonly travelling over hundreds of kilometres (DLRM 2012).
Aves	<i>Pluvialis squatarola</i>	Grey Plover	Migratory	In their non-breeding grounds in Australia, Grey Plovers occur almost entirely in coastal areas (SEWPaC 2013c). The Grey Plover has been recorded at Port Stephens (SKM 2007) and observed in the Hunter estuary (Herbert 2007). This species has been observed along the Darwin foreshore and adjacent to the western boundary of the RAAF Base Townsville (ALA 2013).
Aves	<i>Motacilla cinerea</i>	Grey Wagtail	Migratory	
Aves	<i>Tringa brevipes</i> (= <i>Heteroscelus brevipes</i>)	Grey-tailed Tattler	Migratory	Within Australia, the Grey-tailed Tattler has a primarily northern coastal distribution and is found in most coastal regions (Higgins & Davies 1996). This species is considered a summer migrant in the Hunter region where it is usually confined to the saltwater habitats along the northern arm of the Hunter River (Herbert 2007). It has been frequently observed along the Darwin foreshore (ALA 2013) and also recorded within the Ross River estuary (DMR 2009).
Aves	<i>Gallinago hardwickii</i>	Latham's Snipe	Migratory	
Aves	<i>Thalasseus bengalensis</i>	Lesser Crested Tern	Migratory	
Aves	<i>Fregata ariel</i>	Lesser Frigatebird	Migratory	
Aves	<i>Charadrius mongolus</i>	Lesser Sand Plover	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.

Class	Scientific Name	Common Name	EPBC	Habitat
Aves	<i>Numenius minutus</i>	Little Curlew	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Charadrius dubius</i>	Little Ringed Plover	Migratory	
Aves	<i>Calidris minuta</i>	Little Stint	Migratory	
Aves	<i>Sternula albifrons</i>	Little Tern	Migratory	The eastern sub-population has been recorded within Queensland at the Bowling Green Bay and Coral Sea Reserves. The non-breeding population is widespread across Australia. This species is known to occur in sheltered estuarine or coastal environments where they roost on sand-spits, banks and bars.
Aves	<i>Stercorarius longicaudus</i>	Long-tailed Jaeger	Migratory	
Aves	<i>Calidris subminuta</i>	Long-toed Stint	Migratory	
Aves	<i>Tringa stagnatilis</i>	Marsh Sandpiper	Migratory	The Marsh Sandpiper lives in permanent or ephemeral wetlands throughout Australia during the non-breeding season (SEWPaC 2013c). The Marsh Sandpiper is widespread throughout the Hunter estuary (Herbert 2007). There are several recorded observations of this species to the east and west of RAAF Base Tindal and multiple observations to the east of RAAF DAR (ALA 2013) and it has been periodically recorded in Ross River estuary (DMR 2009).
Aves	<i>Tyto novaehollandiae kimberli</i>	Masked Owl	Vulnerable	
Aves	<i>Coracina tenuirostris melvillensis</i>	Melville Cicadabird	Migratory	Records of the Melville Cicadabird have been observed near Darwin, but no records are within proximity to RAAF Base Tindal or RAAF Base Townsville (ALA 2013).
Aves	<i>Cuculus optatus</i>	Oriental Cuckoo	Migratory	
Aves	<i>Charadrius veredus</i>	Oriental Plover	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Glareola maldivarum</i>	Oriental Pratincole	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Acrocephalus orientalis</i>	Oriental Reed-Warbler	Migratory	

Class	Scientific Name	Common Name	EPBC	Habitat
Aves	<i>Pluvialis fulva</i>	Pacific Golden Plover	Migratory	Within Australia, the Pacific Golden Plover is widespread in coastal regions, although it occasionally occurs around inland wetlands (SEWPaC 2013c). This species has been recorded frequently in summer in the Hunter estuary (Herbert 2007). There are two observations of Pacific Golden Plover along the Katherine River east of RAAF Base Tindal and several within the vicinity of the RAAF DAR (ALA 2013). There have been several sightings in the Ross River estuary (Main Roads 2005) and around RAAF Base Townsville (ALA 2013)
Aves	<i>Geophaps smithii</i>	Partridge Pigeon	Vulnerable	
Aves	<i>Calidris melanotos</i>	Pectoral Sandpiper	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Gallinago stenura</i>	Pin-tailed Snipe	Migratory	
Aves	<i>Stercorarius pomarinus</i>	Pomarine Jaeger	Migratory	
Aves	<i>Merops ornatus</i>	Rainbow Bee-eater	Migratory	The Rainbow Bee-eater is widely distributed throughout Australia (ALA 2013). It has been recorded in Ross River estuary, south east of RAAF Base Townsville (DMR 2009).
Aves	<i>Erythrotriorchis radiatus</i>	Red Goshawk	Vulnerable	
Aves	<i>Calidris canutus</i>	Red Knot	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Sula sula</i>	Red-footed Booby	Migratory	
Aves	<i>Phalaropus lobatus</i>	Red-necked Phalarope	Migratory	
Aves	<i>Calidris ruficollis</i>	Red-necked Stint	Migratory	
Aves	<i>Charadrius hiaticula</i>	Ringed Plover	Migratory	
Aves	<i>Sterna dougallii</i>	Roseate Tern	Migratory	
Aves	<i>Arenaria interpres</i>	Ruddy Turnstone	Migratory	Observed along most of the Darwin foreshore (ALA 2013)
Aves	<i>Philomachus pugnax</i>	Ruff	Migratory	The Ruff is a rare but regular visitor to Australia that can generally be found on fresh, brackish or saline wetlands with exposed mudflats at the edges (SEWPaC 2013c). There are single records of the species in the Hunter estuary (Herbert 2007) and several observations east and south west of RAAF Darwin (ALA 2013).

Class	Scientific Name	Common Name	EPBC	Habitat
Aves	<i>Rhipidura rufifrons</i>	Rufous Fantail	Migratory	The Rufous Fantail has been observed throughout Williamtown and one observation is located 5 km east of the RAAF Darwin (ALA 2013). The species has also been observed in mangrove habitat, within Ross River estuary, Townsville (DMR 2009).
Aves	<i>Calidris alba</i>	Sanderling	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Myiagra cyanoleuca</i>	Satin Flycatcher	Migratory	The Satin Flycatcher prefers wetter habitats in tall wet sclerophyll forests (Birdlife Australia 2013). The species has been observed less than 10 km north of RAAF Base Williamtown (ALA 2013) and in the Ross River estuary, Townsville (DMR 2009).
Aves	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Gallinago megala</i>	Swinhoe's Snipe	Migratory	
Aves	<i>Xenus cinereus</i>	Terek Sandpiper	Migratory	In Australia, the Terek Sandpiper has a primarily coastal distribution, with occasional records inland and mostly forages in the open, on soft wet intertidal mudflats or in sheltered estuaries, embayments, harbours or lagoons (BirdLife 2013; SEWPaC 2013c). The species is regarded as a summer migrant in the Hunter region that is only found in saline habitats in the Hunter estuary (Herbert 2007). This species has been observed along the Darwin foreshore and adjacent to RAAF DAR (ALA 2013). It has also been periodically recorded in Ross River estuary (DMR 2009).
Aves	<i>Tringa incana</i> (= <i>Heteroscelus incanus</i>)	Wandering Tattler	Migratory	The Wandering Tattler is a vagrant in the East Asian-Australasian Flyway and is uncommon in Australia (SEWPaC 2013c). The species is generally found on rocky coasts with reefs and platforms, points, spits, piers, offshore islands and shingle beaches or beds (SEWPaC 2013c). As a summer migrant in the Hunter region, it was last seen in 1999 (Herbert 2007). There have been a few observations near the RAAF Darwin some recent observations near the Port of Townsville (ALA 2013).
Aves	<i>Ardenna pacifica</i>	Wedge-tailed Shearwater	Migratory	

Class	Scientific Name	Common Name	EPBC	Habitat
Aves	<i>Numerius phaeopus</i>	Whimbrel	Migratory	This species has the potential to be present within the Hunter Estuary Wetlands Ramsar or the important wetland areas around Darwin, and has been assessed in detail collectively with other migratory shorebirds.
Aves	<i>Motacilla alba</i>	White Wagtail	Migratory	
Aves	<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	Migratory	The White-bellied Sea-Eagle is the most common raptor in the Hunter estuary (Herbert 2007). Three individuals were observed within the South Townsville Beach as part of the Eastern Access Corridor – Port of Townsville (DMR 2005).
Aves	<i>Hirundapus caudacutus</i>	White-throated Needletail	Migratory	The White-throated Needletail is almost exclusively aerial within Australia (Birds Australia 2013). It has been observed just east of RAAF Darwin and along the Williamtown foreshore (ALA 2013). This species was last observed near Townsville Port in 1961 (ALA 2013).
Aves	<i>Chlidonias leucopterus</i>	White-winged Black Tern	Migratory	
Aves	<i>Oceanites oceanicus</i>	Wilson's Storm-Petrel	Migratory	
Aves	<i>Tringa glareola</i>	Wood Sandpiper	Migratory	The species is a rare summer migrant in the Hunter region, usually observed at freshwater swamps (Herbert 2007). There have been numerous recent observations along the Katherine River, approximately 15 km west of the RAAF Base Tindal and it has also been observed to the east of the RAAF Darwin (ALA 2013). Observations of the Wood Sandpiper have also been recorded near the RAAF Base Townsville (ALA 2013).
Aves	<i>Epthianura crocea tunneyi</i>	Yellow Chat (Alligator Rivers subspecies)		
Mammalia	<i>Saccolaimus saccolaimus nudicluniatus</i>	Bare-rumped sheath-tail bat	Critically endangered	This species is primarily found in tropical eucalypt woodland of north-eastern Queensland and the Top End of the Northern Territory (DEHP 2013). It has also been found in rainforest coastal lowlands. It has been recorded roosting in tree hollows in poplar gum (<i>Eucalyptus platyphylla</i>) and also caves and mines. Females in the Queensland sub population have been observed to be pregnant in mid-December