

## Saltmarsh as habitat for birds and other vertebrates

Jennifer Spencer, Vaughan Monamy and Mark Breitfuss

### Introduction

Saltmarshes are highly productive systems (Adam 1990), yet in comparison with other temperate ecosystems they support relatively few species of terrestrial vertebrates (Greenberg *et al.* 2006). Although the importance of saltmarsh habitat has been documented for faunal species in the northern hemisphere (Sherwood *et al.* 2000; Greenberg *et al.* 2006), and for bird species in particular (Goss-Custard and Yates 1992; Ganter *et al.* 1997; Norris *et al.* 1998; Norris 2000; Hughes 2004), few studies have investigated the importance of saltmarsh habitat for vertebrate species in Australia. This is beginning to change as coastal saltmarsh in Australia gains recognition as important habitat for bird and mammal species (Adam 1990; Morrisey 2000; Laegdsgaard 2006). In 2004, for example, coastal saltmarsh was listed as an endangered ecological community in three bioregions in New South Wales (NSW *Threatened Species Conservation* (TSC) Act 1995) which recognised its importance as feeding and roosting habitat for shorebirds and foraging habitat for insectivorous bats.

### Birds

#### Bird diversity in saltmarsh

Saltmarsh is of direct importance to many avian species by providing habitat in which individuals can breed, feed and roost. In Australia, common colonial waterbird species, such as the Australian White Ibis (*Threskiornis molucca*), Straw-necked Ibis (*Threskiornis spinicollis*) and Cattle Egret (*Ardea ibis*), can be found in large flocks in coastal wetlands when wetlands in inland Australia are dry (Kingsford and Norman 2002). Large numbers of Black Swans (*Cygnus atratus*), Chestnut Teal (*Anas castanea*) and Australian Shelduck (*Tadorna tadornoides*) can also congregate in saltmarshes in order to feed and roost.

Coastal saltmarsh may also act as drought refuges for Australian breeding shorebird species such as the Black-fronted Dotterel (*Elseyornis melanops*), Red-kneed Dotterel (*Erythronyx cinctus*), Black-winged Stilt (*Himantopus himantopus*) and Red-necked Avocet (*Recurvirostra novaehollandiae*) (Lane 1987; Smith 1991), and some shorebirds, such as the Black-winged Stilt, Masked Lapwing (*Vanellus miles*) and Red-capped Plover (*Charadrius ruficapillus*), will also breed in saltmarsh (Marchant and Higgins 1993).