

Chestnut Teal count – March 2011

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In March 2011, 4,497 Chestnut Teal *Anas castanea* were counted during a comprehensive survey of the Hunter Estuary and other wetlands in the Lower Hunter and Lake Macquarie areas. 4,117 Chestnut Teal, which is >4% of the Australian population, occurred in the estuary. The importance of the Hunter Estuary Important Bird Area (IBA) to Chestnut Teal was confirmed.

On 18 March 2011 during a regular monthly survey as part of the Hunter Shorebird Surveys, Mick Roderick counted 1,637 Chestnut Teal *Anas castanea* at Deep Pond on Kooragang Island. Subsequently, on 26 March 2011, Ann Lindsey visited the eastern side of Hexham Swamp and counted 1,200 Chestnut Teal. The question arose as to whether these counts involved the same birds or whether they were in fact separate flocks.

Much of the 8,453ha Hunter Estuary (32° 52' / 151° 45') is designated as an Important Bird Area (IBA) as it meets several of the necessary criteria. The IBA Program, initiated by BirdLife International, aims to identify, monitor and protect a global network of IBAs for the conservation of the world's birds and other biodiversity. Birds Australia is coordinating the IBA program in Australia through regional networks of bird groups and conservation organisations. IBA designation is entirely non-governmental and has no legal implications (Dutson *et al.* 2009).

Under the IBA 'congregatory waterbirds' criterion (specifically criterion A4i), any area containing 1% or more of the total estimated biogeographic population is recognised as an IBA. In the case of Chestnut Teal this threshold is 1,000 birds, the estimated population in South-eastern Australia being 100,000 birds (Wetlands International 2006: 89). In 2004 an estimated 3,500 Chestnut Teal were regularly counted in Fullerton Cove (Allan Richardson pers. comm.) and several records of over 1,000 birds exist elsewhere in the estuary (Stuart 1995-2010).

A one-off survey was organised for 1300 hours on 9 April 2011 to count the number of Chestnut Teal

in the Hunter Estuary and at other sites in the Lower Hunter and Lake Macquarie. The number of sites surveyed was limited by the number of participants. The time chosen coincided approximately with the high tide at Stockton Bridge, consistent with the protocols of the monthly Hunter Shorebird Surveys. It also coincided with a time (early afternoon) when waterfowl are least active.

Nineteen sites were surveyed by eleven people between 1230 and 1520 hours on the day (**Table 1**). Most surveys occurred between 1300 and 1400 hours. Counts were considered to be accurate at those sites with fewer birds. Counts on Deep Pond and Ash Island were made by counting groups of birds sitting on the water or roosting on banks and are likely to have an estimated error of between 10 and 20% due mainly to birds moving about during the count period. The count on Hexham Swamp was difficult as the birds were huddled together on the edge of an open area, but partly obscured by vegetation, at a distance of approximately 150 metres. However, they were put to flight by a low-flying ultra-light aircraft. The flock split into two groups and 800 landed on open water close to the observer, where they were accurately counted. An estimated 1,000 birds wheeled around landing back in the original area. The error in the Hexham Swamp count was estimated to be 10-20%.

At the time of the count only small numbers of Grey Teal *Anas gracilis* were present in the general area as they had largely abandoned coastal sites most likely as a result of inland rainfall. This meant that there was little room for error in the identification of teal species at the time of the count.

A total of 4,497 Chestnut Teal was counted, with 4,177 birds being present in the immediate vicinity of the Hunter Estuary. Morpeth Wastewater Treatment Works was the next most important area with 220 Chestnut Teal counted.

Table 1 – Survey locations and number of Chestnut Teal counted

SITES SURVEYED	COUNTS
Hunter Estuary	
Hexham Swamp (eastern and western sides)	1,800
Pambalong Nature Reserve, Minmi	43
Hunter Wetlands Centre, Shortland	36
Newcastle Wetlands Reserve, Sandgate	2
Ash Island, Hexham	908
Deep Pond, Kooragang Island	1,388
HUNTER ESTUARY TOTAL	4,177
Other Sites in Lower Hunter / Lake Macquarie	
Tarro and Woodberry Wetlands	33
Morpeth Wastewater Treatment Works	220
Morpeth Common	10
Morpeth Cemetery Wetland	30
Morpeth Manor Wetland	4
Irrawang Swamp, Raymond Terrace	1
Newline Road Wetland, Raymond Terrace	11
Walka Waterworks, Maitland	7
Stockton Borehole Wetland, Boolaroo	0
Toronto Wetland, Toronto	0
Stoney Creek, Toronto	4
OVERALL AREA TOTAL	4,497

The presence of 4,177 Chestnut Teal in the Hunter Estuary is the highest counted number on record and confirms the status of this location as an Important Bird Area for this species.

It is known that, unlike most other species of Australian waterfowl, Chestnut Teal tolerate high-salinity habitats (Marchant & Higgins 1990). The distribution of this species at the time of the count is interesting in that only 401 birds (8.9%) were

recorded on freshwater wetlands. 2,708 birds (60.2%) were counted in saline areas (on the eastern side of Hexham Swamp and on Ash Island). 1,388 birds (30.9%) were on Deep Pond, the salinity of which is unknown but, as it is adjacent to Ash Island and the Hunter River, both of which are saline habitats, it is reasonable to postulate that Deep Pond may be slightly saline. If this were so, then 4,096 Chestnut Teal (91.1%) were counted in saline-influenced habitats. The maximum known count of this species on a freshwater wetland in the Hunter Region is 836 birds in October 2006 at Morpeth Wastewater Treatment Works (Stuart 2007).

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