



## 4.34 NORTH-WEST SOLENT

LTC site code:	BN
Centre grid:	SZ3395
JNCC estuarine review site:	133
Habitat zonation:	734 ha intertidal, 510 ha subtidal, 19 ha nontidal
Statutory status:	Solent and Southampton Water SPA (UK9011061), Solent and Southampton Water Ramsar (7UK125)
Winter waterbird interest:	Little Grebe, Great Crested Grebe, Cormorant, Dark-bellied Brent Goose, Shelduck, Wigeon, Gadwall, Teal, Pintail, Shoveler, Red-breasted Merganser, Ringed Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Curlew, Redshank, Waterbird assemblage

### SITE DESCRIPTION

The area known collectively as the North-west Solent includes all of the intertidal parts of the north shore of the Solent from the shingle of Hurst Spit in the west to the shoreline south of Sowley Pond in the east. To the east of here there is only a relatively narrow beach as far as Needs Ore Point and the Beaulieu Estuary. The site is not far from the Isle of Wight; the birds at Hurst Spit are closer to the Yar Estuary across the Solent than they are to the birds at Pitts Deep. Although large areas of saltmarsh remain, much of the introduced *Spartina anglica* growth has now died back which, followed by erosion, has increased the area of intertidal flats. There are also areas of *Enteromorpha* algae which is a favoured food of the Brent Geese. The main threat to the area is from predicted sea-level rise which will continue a loss of intertidal habitat that has been occurring over the last 150 years. The Solent has an unusual tidal regime with a 'double high water' occurring. This results in occasions when prime feeding areas may be exposed for as little as two hours per day, leading to movements

between here and other sites (see below) and occasional severe mortality incidents (Tubbs and Wiseman 1992, E. Wiseman pers. comm.). In addition, there is also recreational disturbance from such factors as sailing, shooting and walking, and the threat of land-claim for marina development.

### COVERAGE AND INTERPRETATION

The North-west Solent was covered for the scheme during the winters of 1992–93 and 1997–98, with counts from all months except November 1997. Figure 4.34.1 shows the positions of the 18 sections counted for the survey in both seasons (although one section adjacent to Pennington Marshes was not counted in 1997–98). The area was also counted for the co-ordinated Greater Solent counts in January 1997 and 1999, not considered part of the WeBS LTC dataset. For the purposes of the WeBS LTCs, no data were received for the brackish lagoons and marshes at Pennington Marshes and Keyhaven Marshes

Figure 4.34.2 makes clear how the North-west

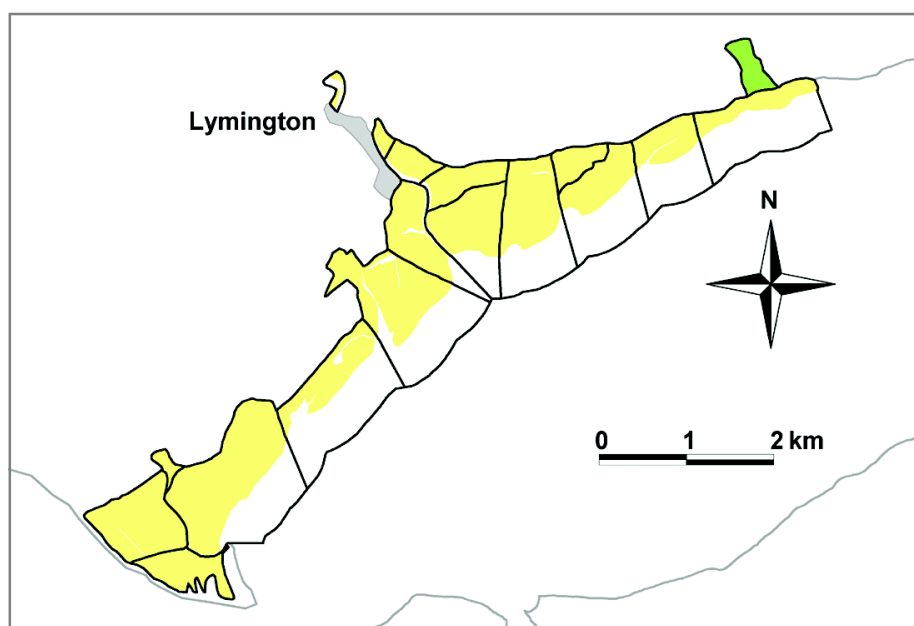


Figure 4.34.1: LTC sections at the North-west Solent, winters 1992–93 and 1997–98

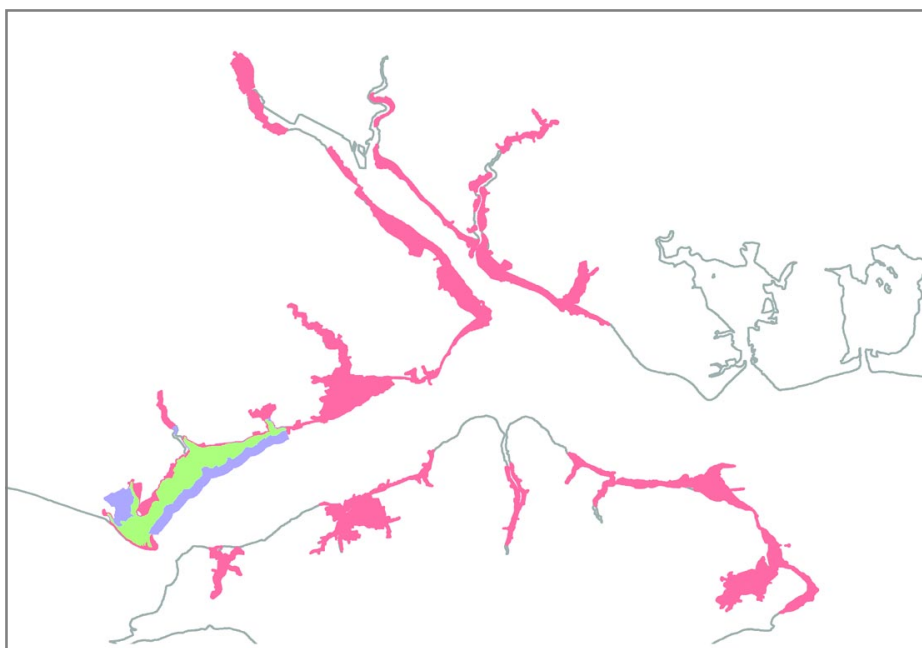


Figure 4.34.2: LTC and SPA boundaries, with overlap, at the North-west Solent

Solent LTC site is only a small part of the wider Solent and Southampton Water SPA. Around the LTC site, agreement is generally close with the exceptions that the SPA includes areas of nontidal coastal marshes, an extension upstream along the Lymington River and Sowley Pond. The SPA and Ramsar site boundaries are mostly coincident around the LTC site, except for slight differences around the Lymington River and Thorns Marsh.

As a part of a larger estuarine complex, the North-west Solent shares its waterbirds to varying degrees with other nearby wetland habitats. Some movement between here and the Beaulieu Estuary and even Southampton Water is thought to take place. Additionally, local observers have noted movements of waders (especially Curlew) and ducks (mostly Teal and Wigeon) moving between the area and the estuaries on the north side of the Isle of Wight (Aspinall and Tasker 1992, E. Wiseman pers. comm.). Some of the Little Egrets spending the day on the North-west Solent shore roost overnight on the Isle of Wight at the Yar Estuary (K. Lover pers. comm.). Furthermore, small numbers of waders have been noted flying westwards from Keyhaven/Hurst Spit along the Milford coast towards Dorset; some feed on clifftop fields but some may be going as far as Christchurch Harbour (E. Wiseman pers. comm.).

Of the remaining species, only small numbers of Little Grebes and Great Crested Grebes and no Gadwall were recorded. These three species utilise adjacent nontidal habitats such as Pennington Marshes, as well as other sites within the wider SPA boundary.

The totals map shows the highest overall bird densities at Keyhaven, Hurst Spit and around the mouth of the Lymington River, although the weighted totals map places less emphasis on the latter area. The overall bird density pattern was mirrored by that of Dark-bellied Brent Goose which occurred across the whole site. Shelducks were also widespread but Wigeon were almost absent from the western half, an unusual pattern given that Teal and Pintail both occurred at Hurst Spit. Shovelers were mostly found around Oxey Lake and most Red-breasted Mergansers were at Keyhaven. Grey Plovers, Curlews and Redshanks were spread quite evenly but Dunlin, although ubiquitous, followed the same density pattern as Brent Geese (thus leading to the all-bird pattern). Ringed Plovers were localised, preferring Hurst, whilst Lapwings were mostly found at the mouth of the Lymington River and at Keyhaven. Black-tailed Godwits were almost all at Keyhaven and Hurst. Cormorants were found around the Lymington River in only small numbers.

## WATERBIRD DISTRIBUTION

Low tide distribution maps from the winter of 1992–93 are presented for 15 of the 18 species of principal interest listed above. Additional maps of total birds and total birds weighted by 1% threshold value are also presented (Figure 4.34.3).

# NORTH-WEST SOLENT

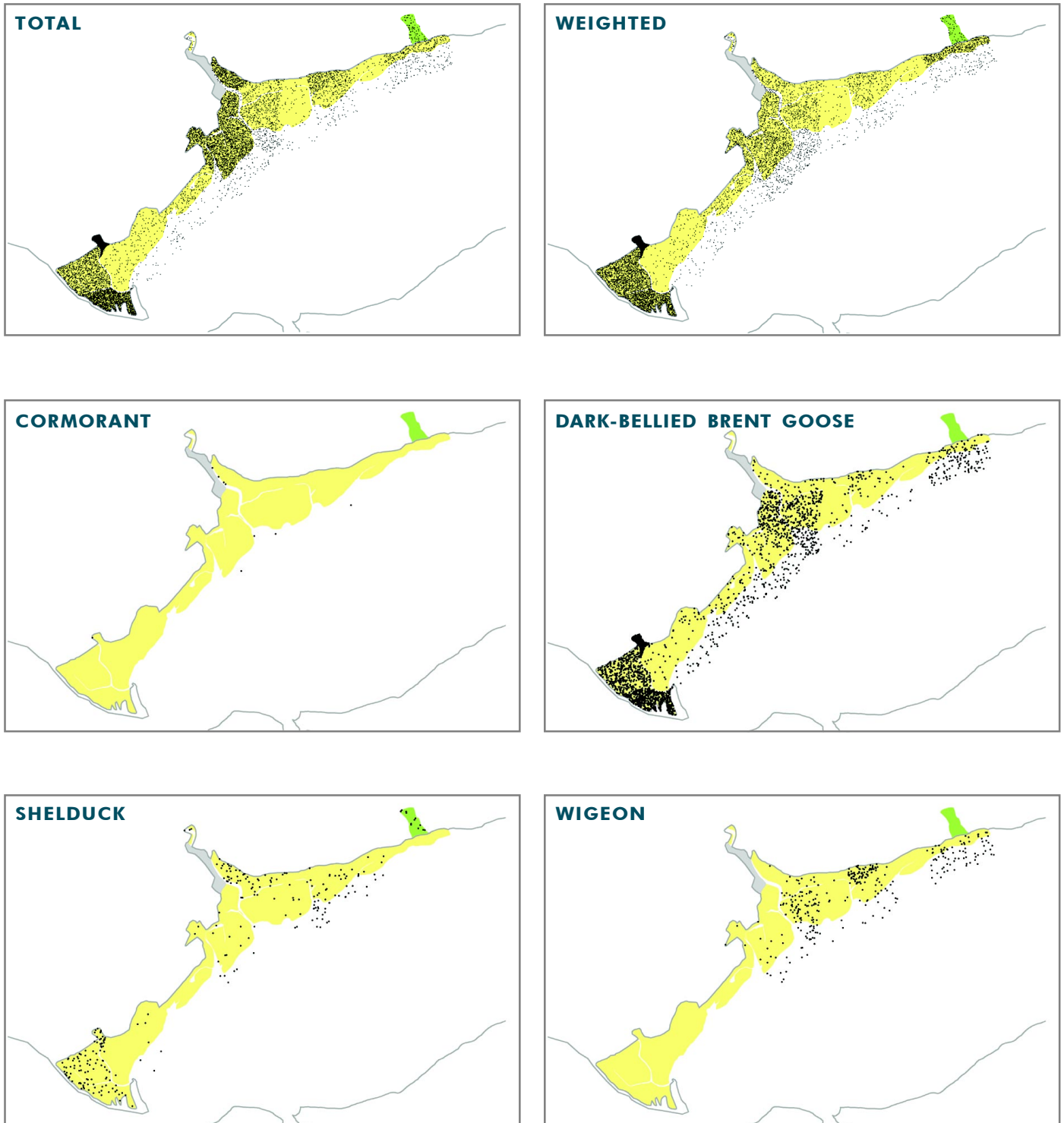


Figure 4.34.3 (i): Low tide waterbird distributions recorded at the North-west Solent, winter 1992–93

# NORTH-WEST SOLENT

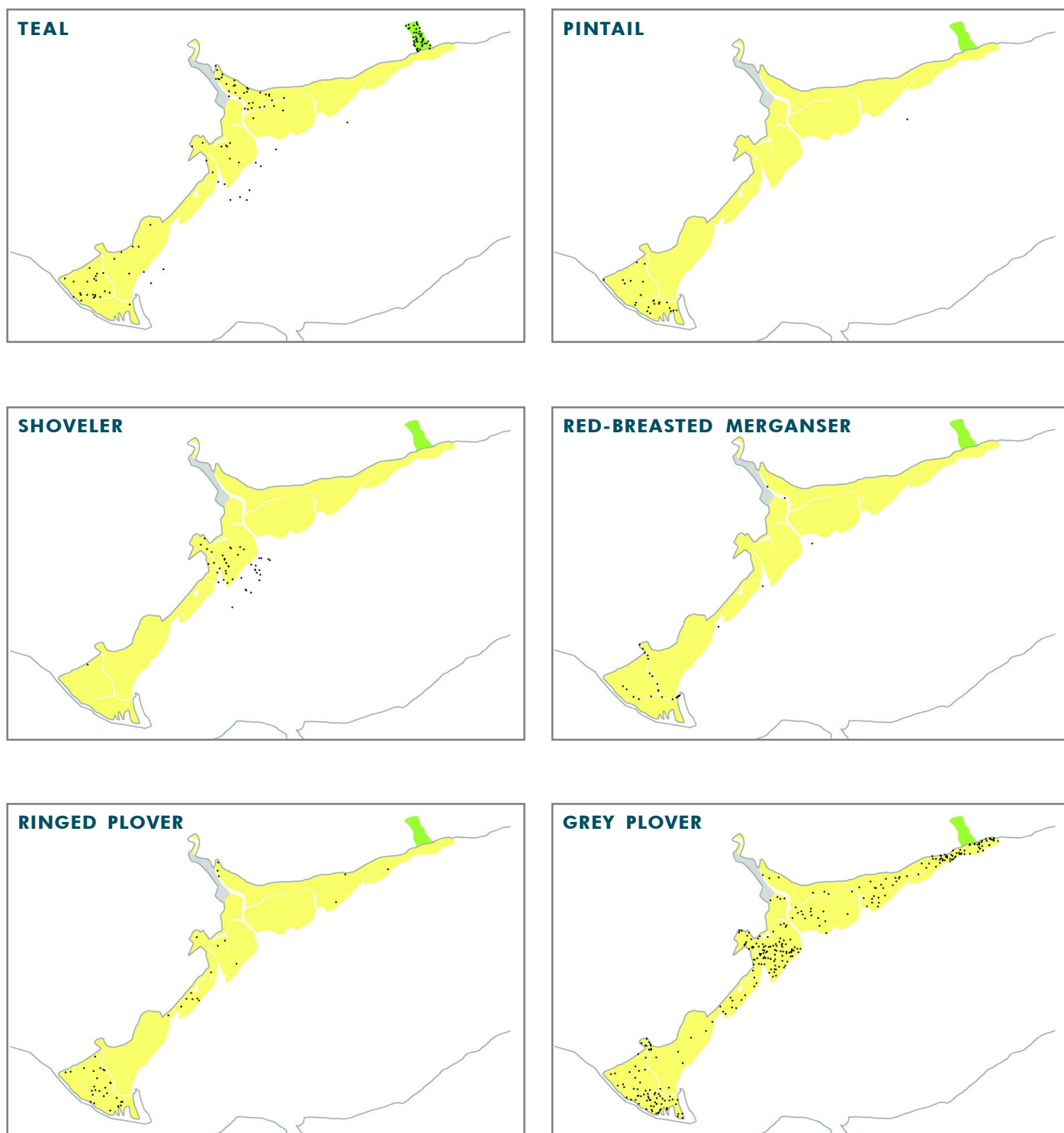


Figure 4.34.3 (ii): Low tide waterbird distributions recorded at the North-west Solent, winter 1992-93

# NORTH-WEST SOLENT

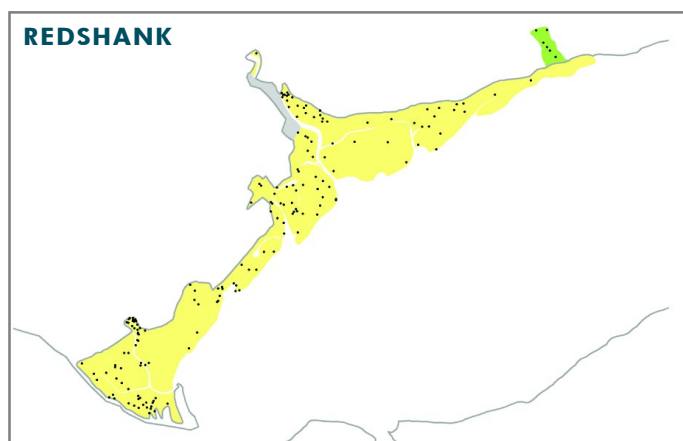
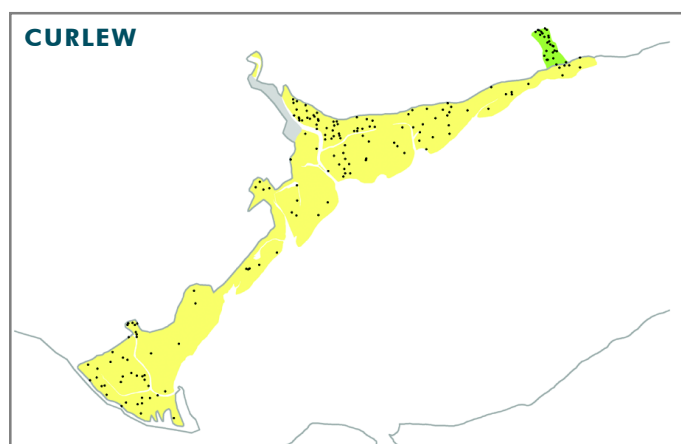
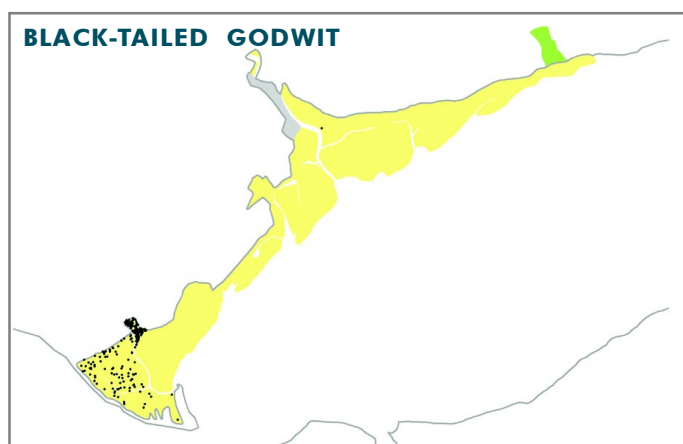
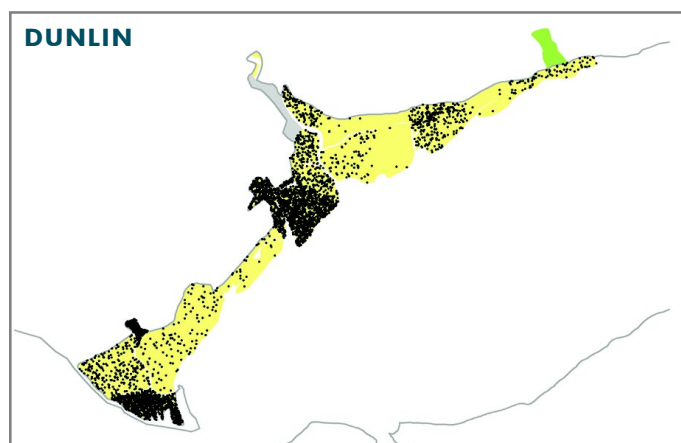
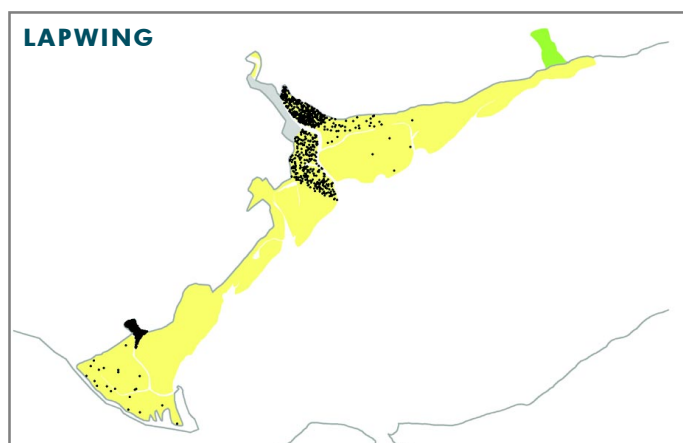


Figure 4.34.3 (iii): Low tide waterbird distributions recorded at the North-west Solent, winter 1992–93

## 4.35 MEDINA ESTUARY

LTC site code:	DE
Centre grid:	SZ5093
JNCC estuarine review site:	136
Habitat zonation:	83 ha intertidal, 56 ha subtidal, 0 ha nontidal
Statutory status:	Solent and Southampton Water SPA (UK9011061), Solent and Southampton Water Ramsar (7UK125)
Winter waterbird interest:	Little Grebe, Great Crested Grebe, Cormorant, Dark-bellied Brent Goose, Shelduck, Wigeon, Gadwall, Teal, Pintail, Shoveler, Red-breasted Merganser, Ringed Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Curlew, Redshank, Waterbird assemblage



### SITE DESCRIPTION

The long, narrow Medina Estuary runs almost due south from Cowes to Newport, cutting a channel about five miles long into the Isle of Wight. Despite its length, the mudflats along its banks are relatively narrow. The amount of freshwater input is relatively small and thus salinity remains high far upstream along the estuary. There is only a small amount of saltmarsh, although that near Werrar is considered to be one of the best examples of a mature, mixed marsh on the south coast of England. Leisure activities are numerous, with most power boating towards the mouth of the site but sailing occurring throughout, especially during the summer racing season at Cowes.

### COVERAGE AND INTERPRETATION

The Medina Estuary was counted for the scheme during the 1995–96 winter, data being returned for all four months. Figure 4.35.1 shows the positions of the three sections counted for the survey. Additionally, the site was counted for the co-ordinated Greater Solent counts in January 1997 (as a single combined count section) and January 1999 (as these three count sections), although these counts are not considered part of the WeBS LTC dataset.

Figure 4.35.2 clearly shows that the Medina Estuary forms only a very small part of the Solent and Southampton Water SPA and any assessment of the bird importance of the estuary should take this into account. The Ramsar site boundaries are similar to those of the SPA with the addition of some nontidal habitat along a creek on the west shore.

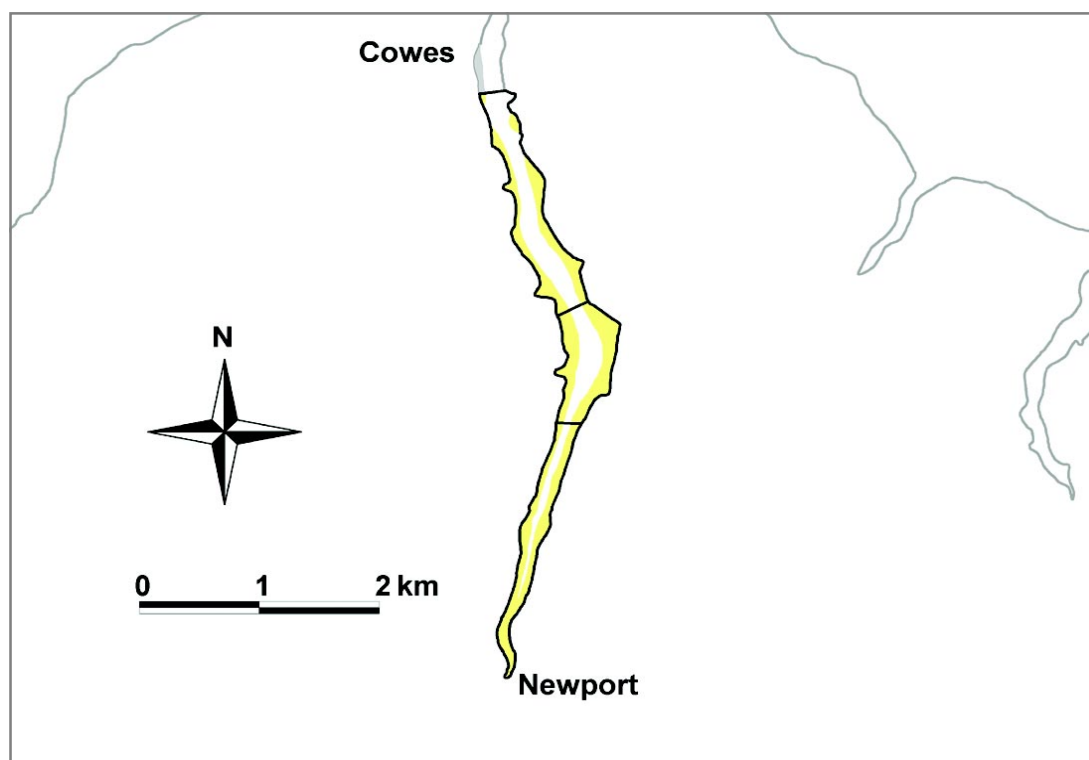


Figure 4.35.1: LTC sections at the Medina Estuary, winter 1995–96



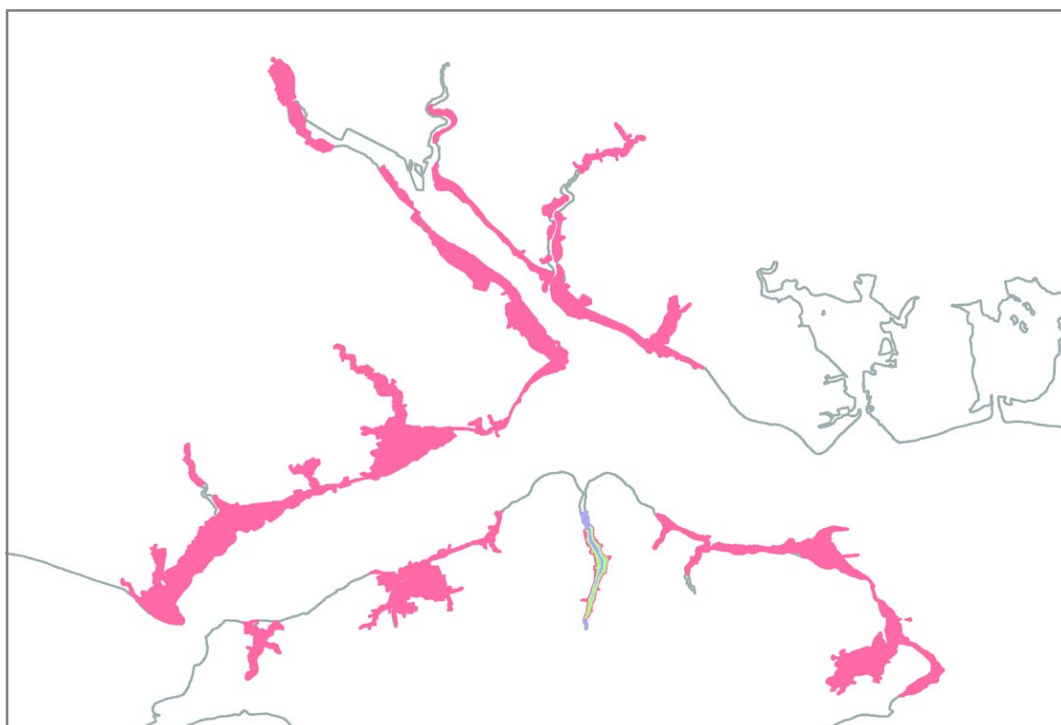


Figure 4.35.2: **LTC and SPA boundaries, with overlap, at the Medina Estuary**

Although the Medina Estuary is relatively close to other estuarine sites within the SPA, there is not as yet any clear indication of daily movements in and out of the site.

### WATERBIRD DISTRIBUTION

Low tide distribution maps from the winter of 1995–96 are presented for 14 of the 18 species of principal interest listed above. Additional maps of total birds and total birds weighted by 1% threshold value are also presented (Figure 4.35.3). Of the remaining species, Great Crested Grebes and Gadwall were recorded in small numbers and Pintail and Shoveler were both absent. The Medina forms only a small part of the wider Solent and Southampton Water SPA and these species occur mostly elsewhere within the SPA.

With only three count sections, the amount of information to be gleaned is limited, but the totals map shows that the middle section held the highest overall bird density. However, the weighted total map increases the emphasis given to the inner section, due to the higher concentration of Little Grebes and Black-tailed Godwits on the latter. The numerical prominence of the middle section was largely due to Dunlin, although Brent Geese, Wigeon and Curlews also showed some increase in density here and most of the Shelducks, Teal, Ringed Plovers and Grey Plovers were to be found on this section. Lapwings and Redshanks were distributed fairly evenly throughout but no species was found at its highest site density on the northern-most section.

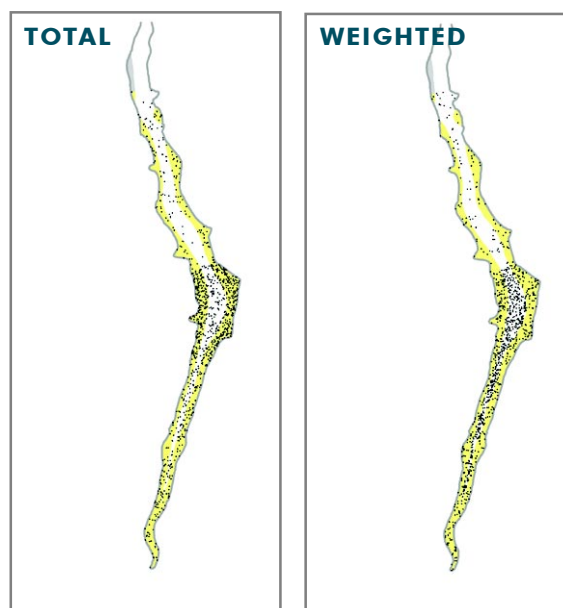


Figure 4.35.3 (i): **Low tide waterbird distributions recorded at the Medina Estuary, winter 1995–96**

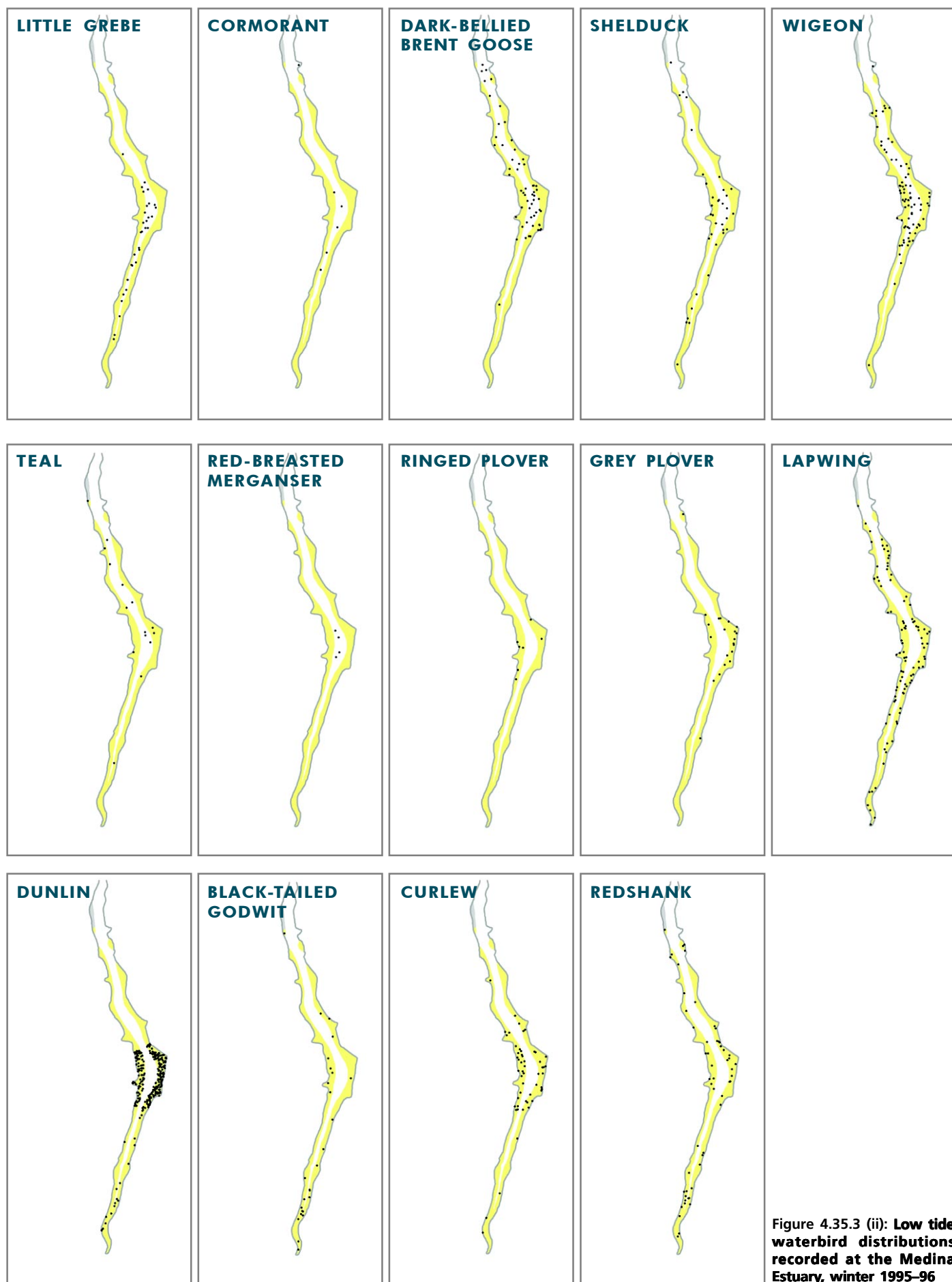


Figure 4.35.3 (ii): Low tide waterbird distributions recorded at the Medina Estuary, winter 1995-96





## 4.36 POOLE HARBOUR

LTC site code:	DP
Centre grid:	SZ0189
JNCC estuarine review site:	140
Habitat zonation:	1383 ha intertidal, 1839 ha subtidal, 438 ha nontidal
Statutory status:	Poole Harbour SPA (UK9010111), Poole Harbour Ramsar (7UK138)
Winter waterbird interest:	Cormorant, Little Egret, Dark-bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Pochard, Goldeneye, Red-breasted Merganser, Avocet, Lapwing, Dunlin, Black-tailed Godwit, Curlew, Redshank, Waterbird assemblage

### SITE DESCRIPTION

Poole Harbour is the estuary of the rivers Frome and Piddle but the amount of freshwater input is small. The mouth of the harbour is restricted by two sand spits. Most of the intertidal sediments in the harbour are of soft mud. Extensive areas of the harbour remain as open water at low tide, however. Small saltmarshes are frequent in the south and west of the site, mostly *Spartina*-dominated. On the north side of the harbour, Holes Bay and Lytchett Bay are almost entirely cut off from the main harbour. There is a small lagoon (the Blue Lagoon) in the north-east of the site. Much of the site is surrounded by farmland and forestry, but there are important (although fragmented) areas of heathland adjacent to the harbour. There are a number of islands within the harbour, the largest being Brownsea Island. The harbour is popular with watersports enthusiasts and the north and north-eastern side of the site around Poole is urbanised.

### COVERAGE AND INTERPRETATION

Poole Harbour was covered for the scheme during the 1993–94 winter, counts being carried out during all four months. Figure 4.36.1 shows the positions of the 32 sections counted for the survey.

Figure 4.36.2 shows the overlap between the LTC and SPA boundaries. All of the area covered for the LTCs is included within the SPA boundary (except for open water). In addition, the SPA also includes substantial areas of nontidal habitat around the fringes of the estuary, especially in the west, as well as the lake of Little Sea on Studland Heath. The boundaries of the Ramsar site are very similar to those of the SPA except that the former includes a few additional areas of nontidal marshes.

Poole Harbour is relatively isolated from other estuarine sites, although a small amount of

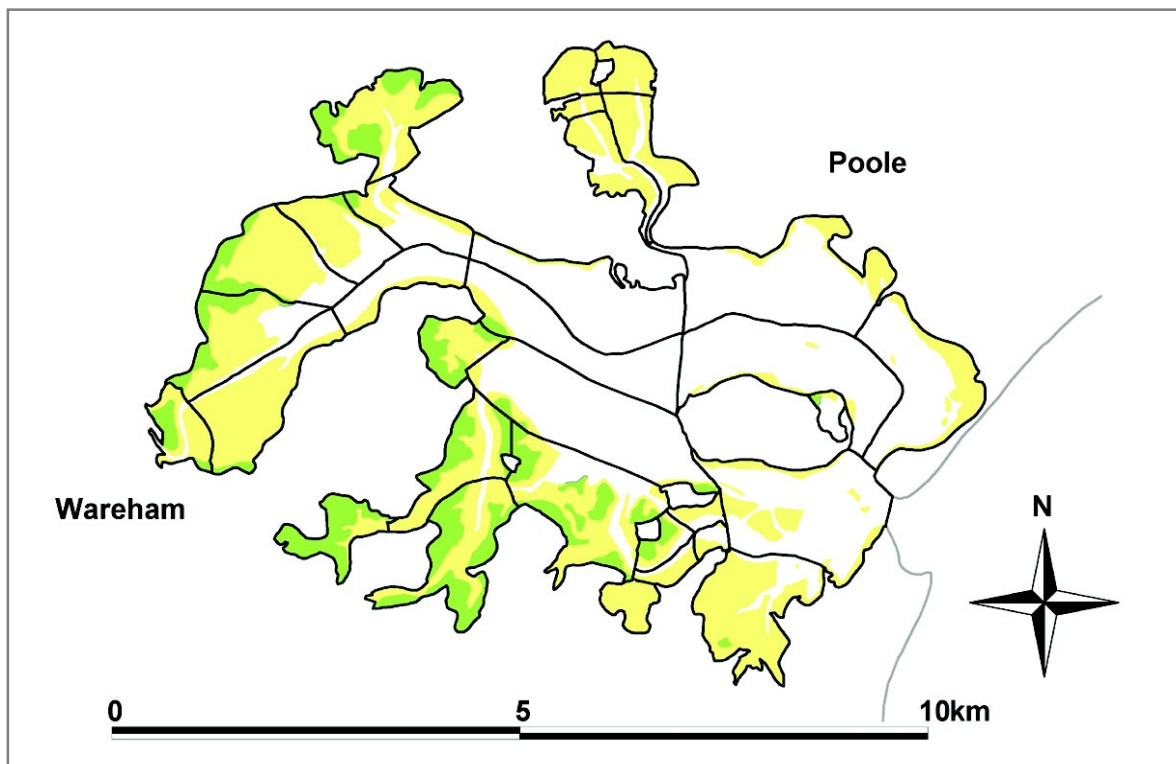


Figure 4.36.1: LTC sections at Poole Harbour, winter 1993–94

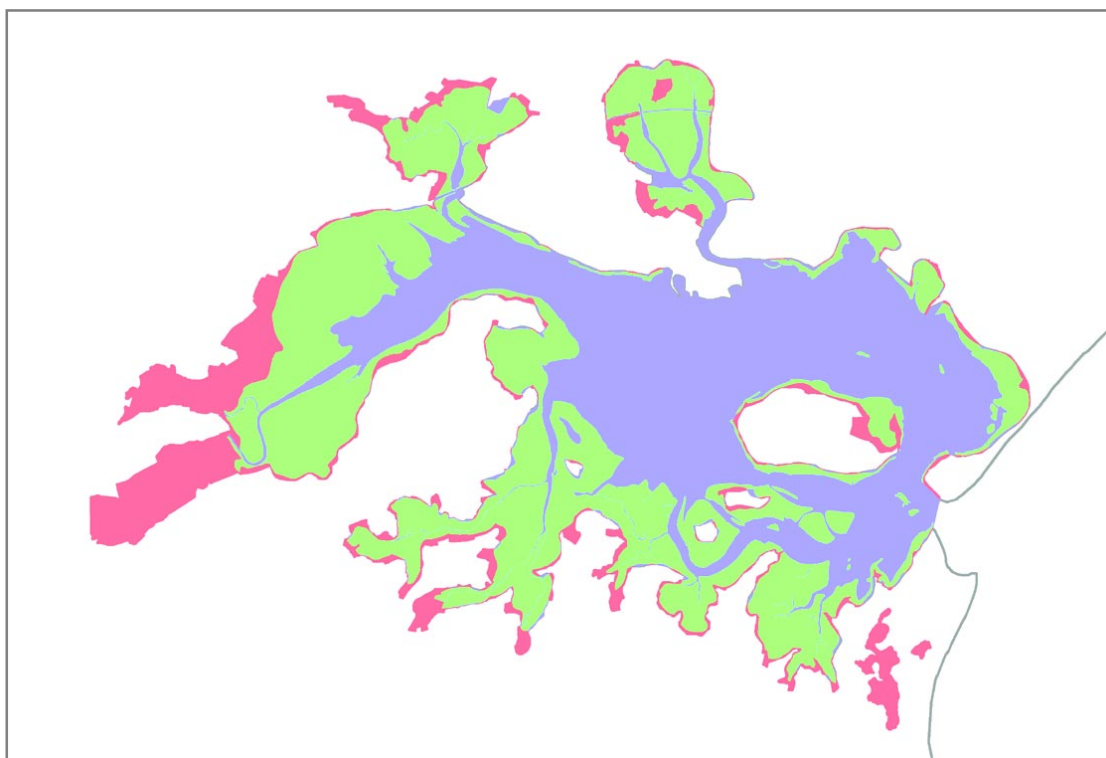


Figure 4.36.2: LTC and SPA boundaries, with overlap, at Poole Harbour

interchange with Christchurch Harbour seems possible. Dispersal to inland habitats is likely by some species along the river valleys. Large-scale daily movements of Red-breasted Mergansers, Cormorants and other species used to occur, leaving the harbour at dawn to feed on the open coast and returning at dusk. However, such movements became much reduced during the 1990s (S. Morrison pers. comm.).

#### WATERBIRD DISTRIBUTION

Low tide distribution maps from the winter of 1993–94 are presented for 13 of the 16 species of principal interest listed above. Additional maps of total birds and total birds weighted by 1% threshold value are also presented (Figure 4.36.3). The remaining three species were present in low numbers only, with Shoveler and Pochard presumably mostly found at Little Sea. Little Egret is a recent colonist in Britain and whilst it was present at Poole Harbour in the 1993–94 winter, it was then far less numerous than it was by 1999 when the SPA was classified.

The totals map suggests higher bird densities overall in the south and west of the site, with the weighted totals map similar but differing in subtle ways; highlighted areas appear to be at Swineham Point/Gigger's Island, the north shore of Brownsea Island, Wych Lake and Newton Bay. Cormorants were widespread but especially numerous at Brownsea Lagoon where they roost. Brent Geese were most numerous along the

southern edge of the harbour but Shelducks were very widespread with a small area of Holes Bay holding a high concentration. Teal were widespread but less common in the western part of the harbour, whereas Pintail were rather localised, being mostly found in the south-central part of the site between Long Island and Goathorn Point. Red-breasted Mergansers were more widespread than Goldeneyes, the latter found mostly at Wareham Channel and Ramshorn Lake.

Avocets were highly localised at Brownsea Island (mostly at the lagoon) and at Wych Lake. Lapwings were mostly around the south-west of the harbour, with birds recorded especially at Gigger's Island and Slepe Moor (although most use adjacent terrestrial habitats, S. Morrison pers. comm.). Dunlin, Curlews and Redshanks were all widespread but Black-tailed Godwits were more concentrated, especially at Wareham Channel and Newton Bay.

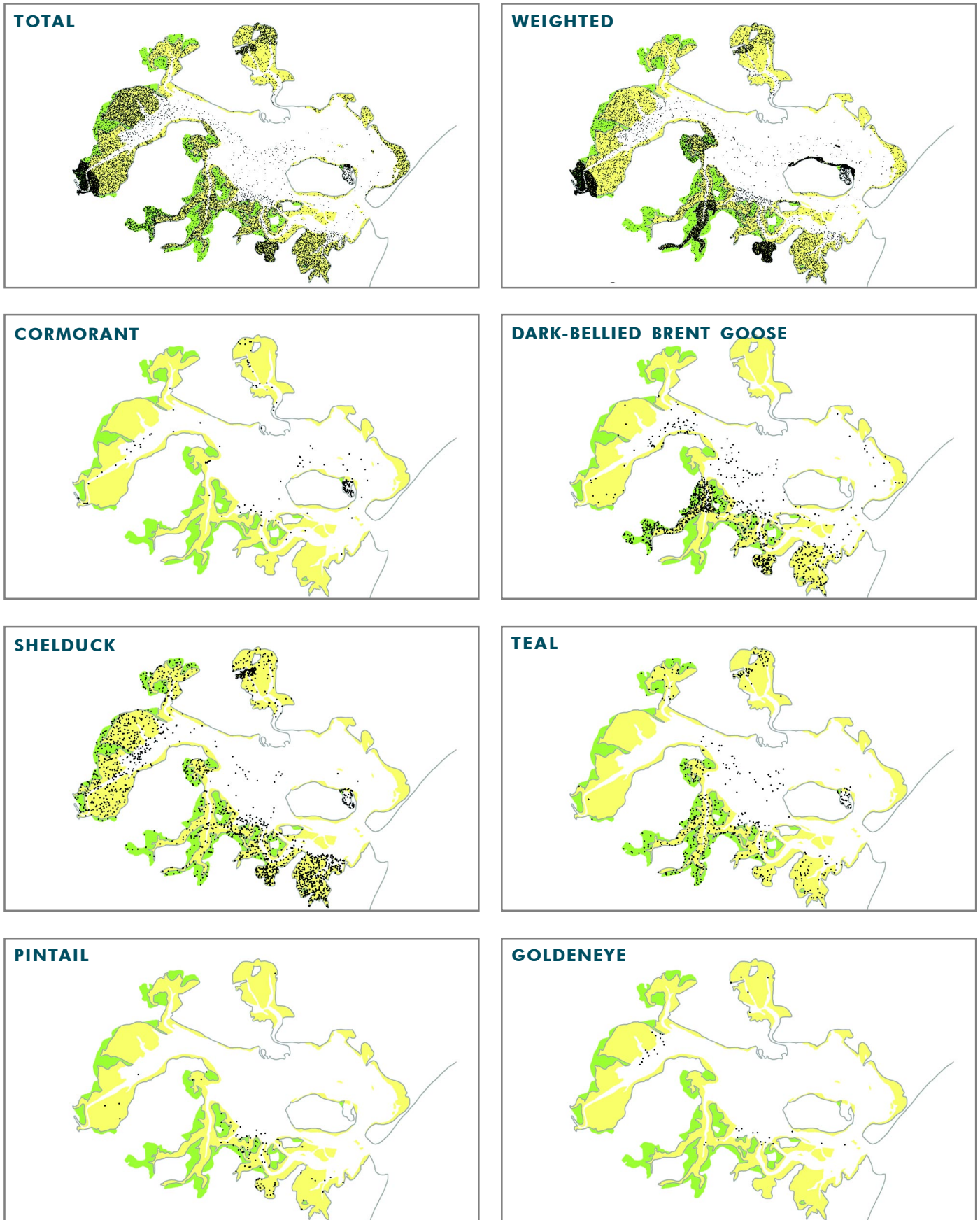


Figure 4.36.3 (i): Low tide waterbird distributions recorded at Poole Harbour, winter 1993–94



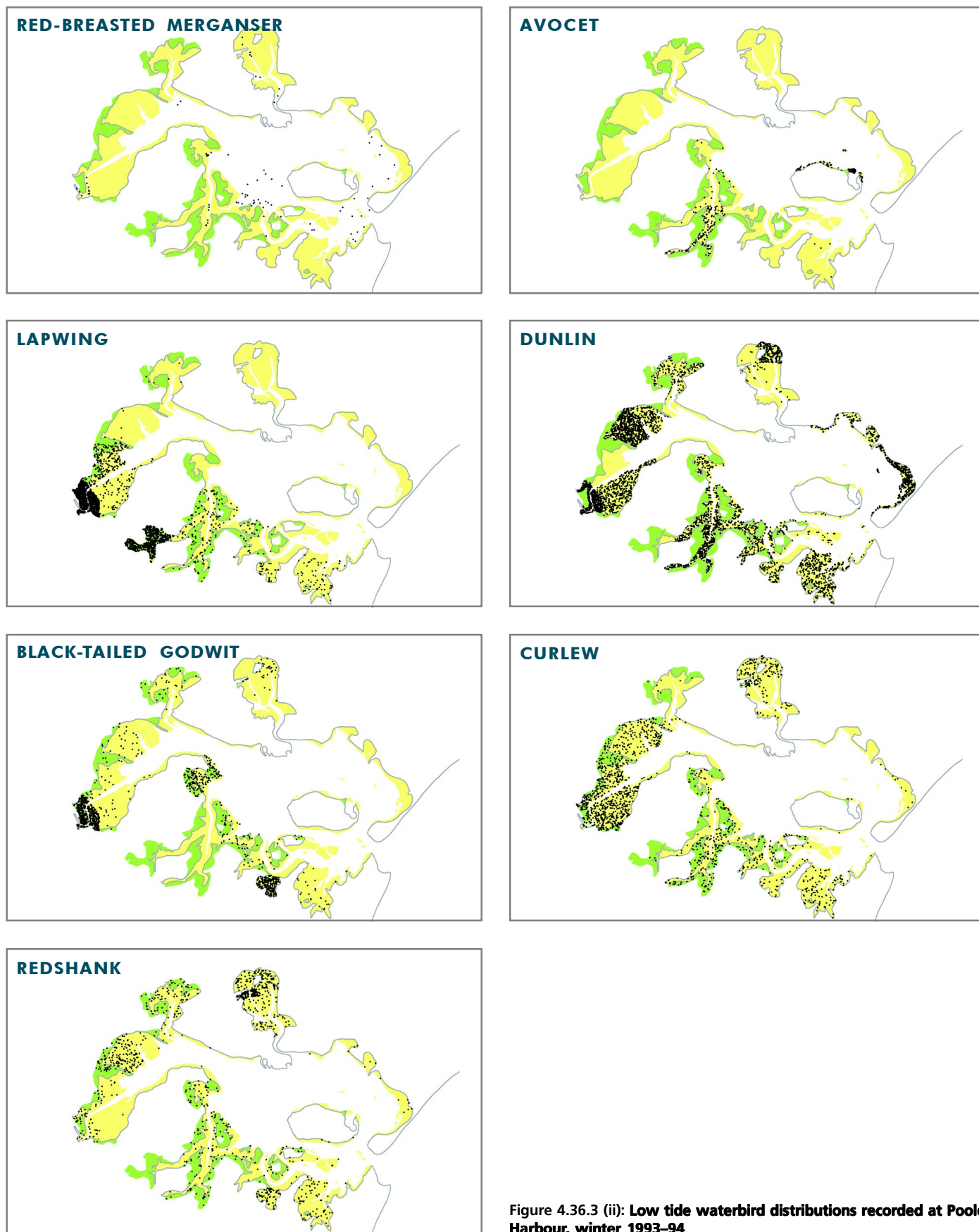


Figure 4.36.3 (ii): Low tide waterbird distributions recorded at Poole Harbour, winter 1993–94



## 4.37 EXE ESTUARY

LTC site code:	CE
Centre grid:	SX9883
JNCC estuarine review site:	144
Habitat zonation:	971 ha intertidal, 402 ha subtidal, 415 ha nontidal
Statutory status:	Exe Estuary SPA (UK9010081), Exe Estuary Ramsar (7UK051)
Winter waterbird interest:	Slavonian Grebe, Cormorant, Dark-bellied Brent Goose, Wigeon, Red-breasted Merganser, Oystercatcher, Avocet, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Waterbird assemblage

### SITE DESCRIPTION

The Exe is one of the largest estuaries in the south-west of England, about ten miles from its head at Exeter to its mouth between Exmouth and Dawlish Warren. Most of the sediments are muddy but are sandier in the mouth and behind the sand spit of Dawlish Warren. There are extensive mussel beds and patches of *Enteromorpha* and *Zostera*. The amount of saltmarsh is relatively small but there are nontidal grasslands at the adjacent Exminster Marshes. Water-based leisure pursuits are widely pursued around the estuary and beach recreation occurs mostly at Dawlish Warren, although there is relatively little industrial development around the site. Exploitation of fisheries and shell-fisheries (mostly at the southern end of the estuary) occurs, with wildfowling also practised in many parts of the estuary (D. Price pers. comm.).

### COVERAGE AND INTERPRETATION

The Exe Estuary was not counted for the scheme *per se*, but local counters have carried out a series of estuarine counts at different hours of the tidal cycle for some time. From this series, the counts made at low tide during the winter of 1993–94 (November and February only) were suitable for incorporation into the LTCs and provide a preliminary description of the low tide waterbird usage of the site. Figure 4.37.1 shows the positions of the 34 sections counted for the survey.

Figure 4.37.2 shows that the overlap between the LTC and SPA boundaries was close overall. Two small areas outwith the SPA were counted for the LTCs, those being the area between Starcross and Cockwood (partially intertidal) and Powderham Park (nontidal). Parts of the SPA which were not covered by the LTCs were the seaward side of

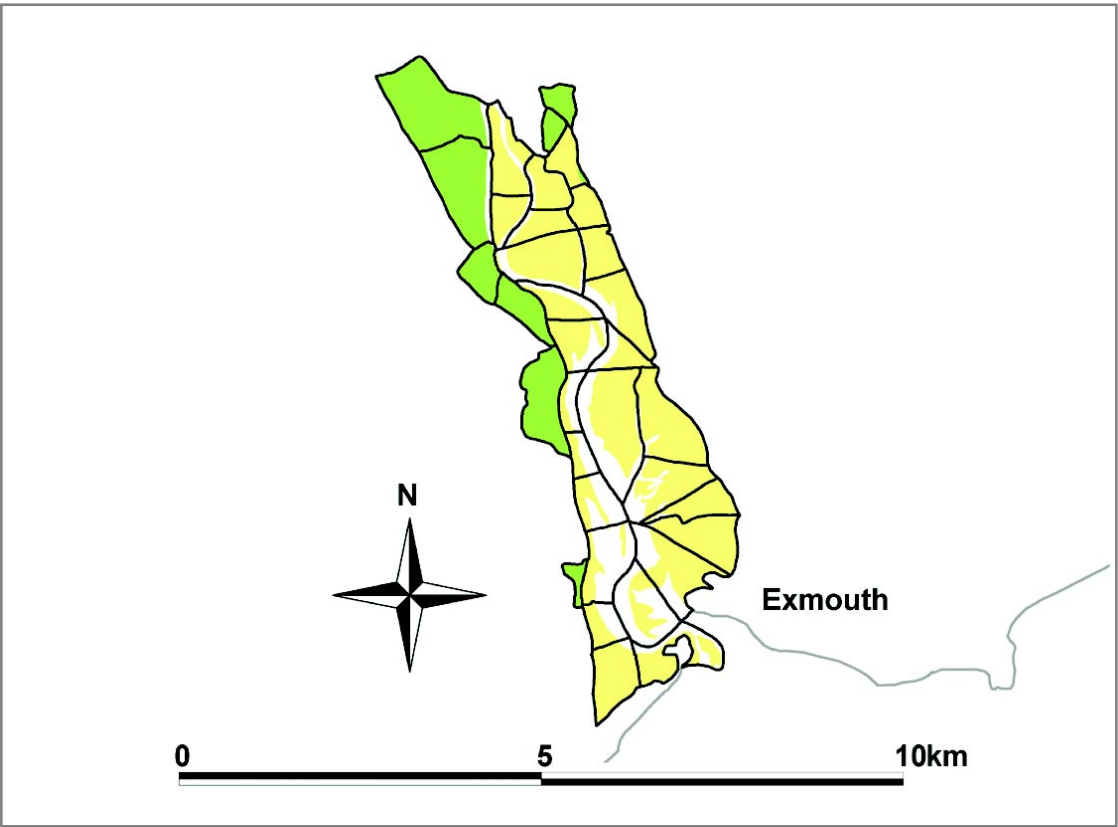


Figure 4.37.1: LTC sections at the Exe Estuary, winter 1993–94

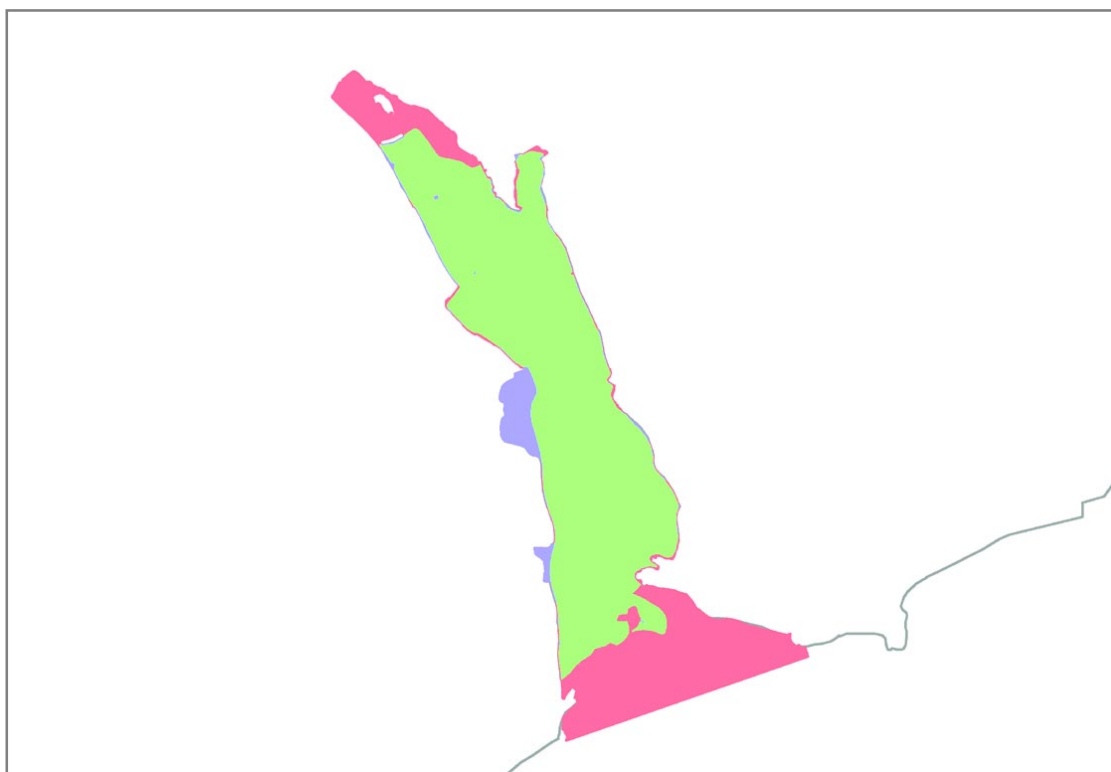


Figure 4.37.2: LTC and SPA boundaries, with overlap, at the Exe Estuary

Dawlish Warren, the outer sandflats, the sea off Dawlish Warren and Exmouth and, at the other end of the estuary, an extension northwards along the river Exe and adjoining nontidal marshes. The boundaries of the Ramsar site are entirely coincident with those of the SPA.

The Exe is a relatively isolated site and there is little movement between here and other sites on a daily basis (D. Price pers. comm.), although it is possible that some may occur between here and the Teign Estuary to the south or the smaller Otter Estuary to the east. Some birds do feed on adjacent nontidal habitats at times, however.

### WATERBIRD DISTRIBUTION

Low tide distribution maps from the winter of 1993–94 are presented for all of the 11 species of principal interest listed above. For clarity, smaller dots are used to display the distributions of Brent Goose, Lapwing and Dunlin. Additional maps of total birds and total birds weighted by 1% threshold value are also presented (Figure 4.37.3).

The totals map shows the highest overall bird densities on the northern mudflat known as Greenland, although this pattern was strongly driven by numbers of Lapwings and Dunlin here. The weighted totals map is different in subtle ways, being more strongly influenced by the distributions of Avocet and Black-tailed Godwit.

Most Avocets were present in the north on the muddier sediments. In contrast, Oystercatchers occurred throughout but were found more densely at the southern end of the site where the main mussel beds are situated. The northern end supported higher densities of Grey Plovers, Black-tailed Godwits and Lapwings, with Dunlin widespread but also at their highest densities in northern sections. Although fairly widespread, Brent Geese were found in three main clusters at the northern end of the site and Wigeon were clumped in a similar, but not identical, manner. These two species tend to frequent the southern end of the estuary early in the winter to feed on *Zostera* but after exhausting this food source they move to the north of the estuary later in the winter (D. Price pers. comm.). Slavonian Grebes were not numerous, but the birds noted on the LTCs occurred towards the mouth of the estuary, as did many of the Cormorants, although a secondary cluster was present at the northern end. Red-breasted Mergansers were more widespread.



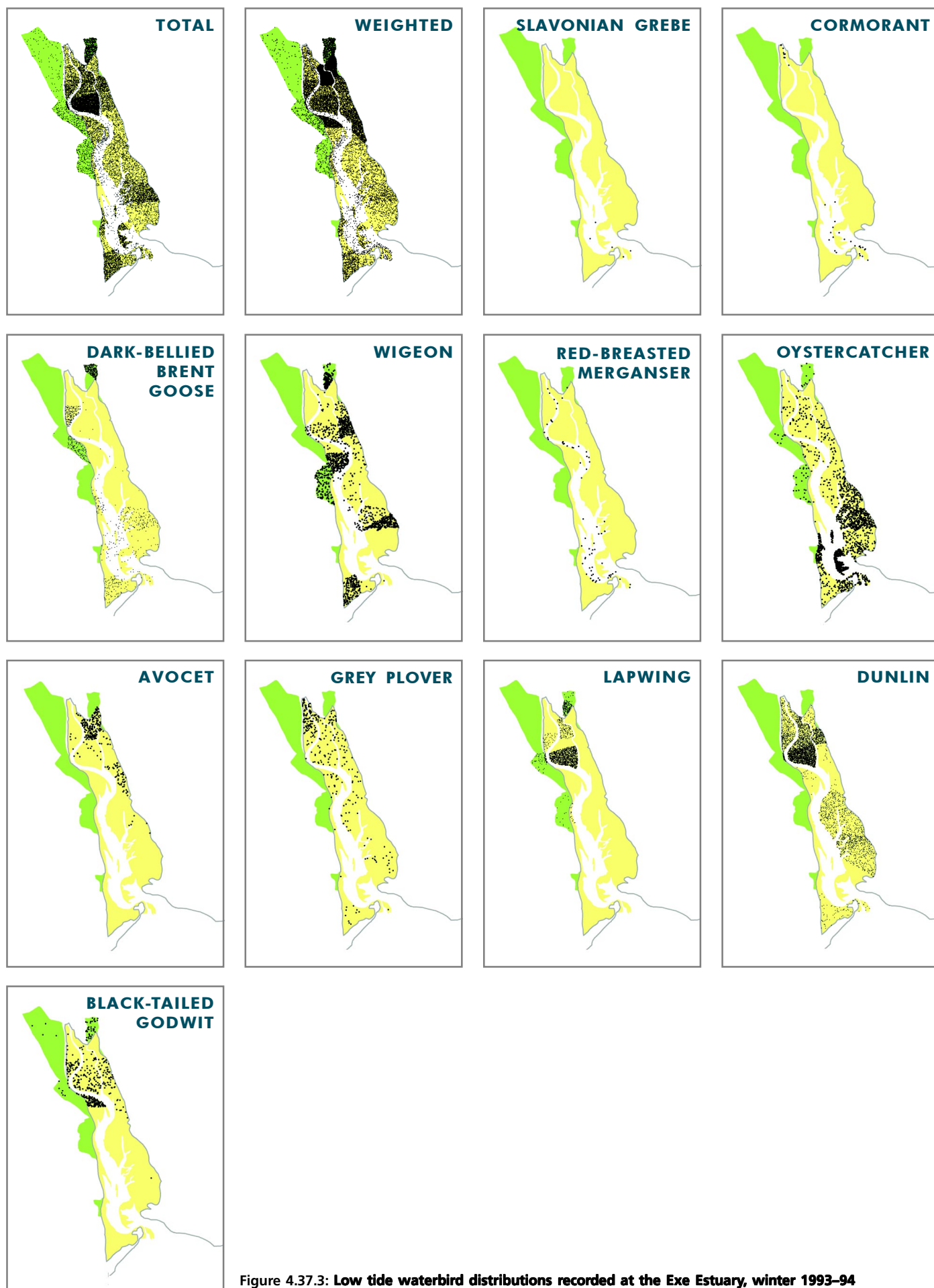


Figure 4.37.3: Low tide waterbird distributions recorded at the Exe Estuary, winter 1993–94