NORTH WEST SOLENT

Site description

The area of the North West Solent counted for WeBS stretches along the Hampshire coast from the Hurst Spit shingle promontory east to Sowley, encompassing the outflow of three running waters, the largest of which is the Lymington River. Intertidal mud is exposed principally inside the hook formed by Hurst Spit and at Lymington, grading into extensive saltmarsh on both sides of the Keyhaven and Lymington Rivers. The area is protected as an SSSI and forms the western end of the Solent & Southampton Water SPA. Part of the site is managed by Hampshire Wildlife Trust as a nature reserve. Sowley Pond is also an SSSI and is included in the SPA designation, though is nontidal and thus not included in Low Tide Counts. Much of the site habitat is considered to be in unfavourable decline, mostly because of coastal squeeze of saltmarsh against sea defences. The site borders the New Forest, and there is little urbanisation except at Lymington. Here, sailing is popular and there are a number of marinas. Tourism and recreational disturbance are also potential factors affecting bird distribution.

General bird distribution 2004/05

Area covered 753 ha; Mean total birds 7,433; Mean bird density 9.9 birds per ha.

The grazing marshes between Keyhaven and Lymington, and other sites within the area, were not counted as part of the WeBS Low Tide scheme, but all intertidal areas were. Many species were spread thinly and widely over the mudflats, suggesting all are profitable. Shelduck, Oystercatcher, Curlew, Redshank, Turnstone and Little Egret were all widespread at varying density. Dunlin were also densely spread, with high density aggregations inside Hurst Spit, off Pennington Marshes, at Oxey Lake and at Tanners Lane/Pitts Deep. The latter site also attracted Knot and Grey Plover, whilst Sowley Farm, to the east, was favoured by Teal and Lapwing. The eastern end of the site also saw highest concentrations of Wigeon. Pylewell Lake was important for Pintail, Grey Plover and Lapwing, whilst at the nearby mouth of Lymington River, additional Teal concentrations were found. On the intertidal off Pennington Marshes, highest average densities of Ringed Plover occurred. Finally, the intertidal formed by the Hurst shingle spit was used by many species, especially mud-foragers such as Shelduck, Grey Plover and Dunlin.

Comparative bird distribution

The distributions of Dark-bellied Brent Geese and Black-tailed Godwit, both present in nationally important numbers, are considered here for the winters of 2004/05 and 1997/98. Dark-bellied Brent Geese have shown some changes on the North West Solent. Most of the reduced average site density for the species in 2004/05 (0.76 birds per ha compared to 1.18 in 1997/98) is attributable to changes in density on the count sector at Hurst Beach; across the rest of the site, densities are similar between the two winters considered. At Hurst Beach, density of the species decreased from 9.33 to 2.45 birds per ha. It is possible that changes in distribution reflect changes in feeding behaviour and that more birds now feed inland. It is, however, unclear whether any degradation of goose feeding habitat is implicated.

However, it is interesting that Black-tailed Godwit distribution shows similar patterns over the same time period. Few of this species are recorded away from Hurst Beach, and no changes of note were recorded on such sectors. At Hurst Spit, density of Black-tailed Godwits decreased from 1.95 to 0.23 birds per ha between 1997/98 and 2004/05. Although the count sector abutting Keyhaven Marshes witnessed increased site density, this was insufficient to counterbalance the apparent decline. Average site density for the winter declined accordingly, changing from 0.27 to 0.11 birds per ha. Closer investigation of potential habitat changes at Hurst Spit would therefore seem worthwhile.

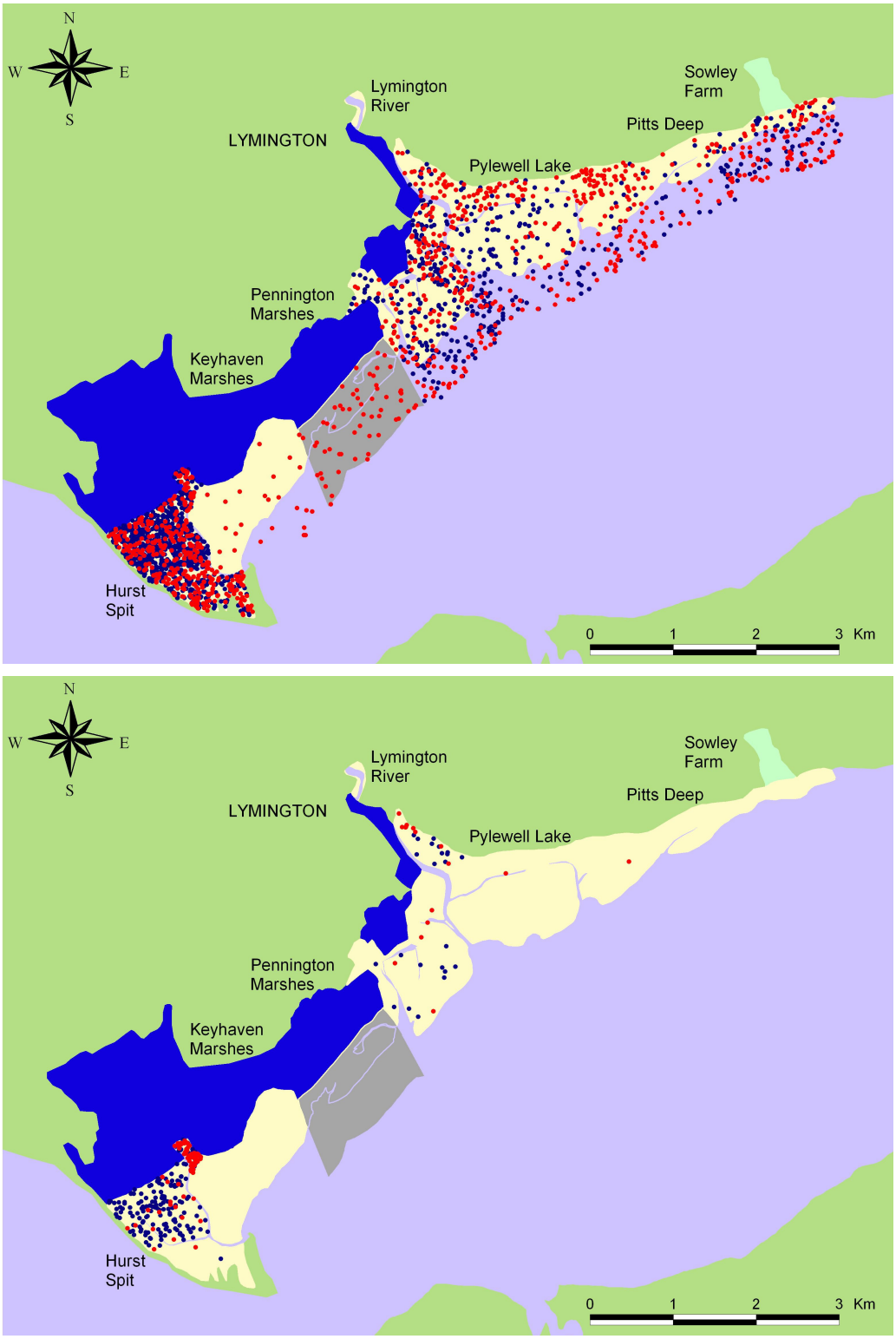

Figure 68. Low Tide distribution of Dark-bellied Brent Goose (above) and Black-tailed Godwit (below) for the winters of 1997/98 (blue dots) and 2004/05 (red). Yellow = intertidal; pale blue = subtidal; pale green = nontidal. Grey area not covered in earlier winter; dark blue areas never covered.

POOLE HARBOUR

Site description

One of the largest natural harbours in the world, Poole Harbour, Dorset, comprises extensive intertidal flats and saltmarsh, with nontidal refuges such as Brownsea Island. Unusual tidal patterns and low tidal range coupled with poor flushing characteristics help to preserve the extent of intertidal habitat, and the vast majority of the site is in favourable condition. The importance of Poole Harbour is underlined by its protective legislation, being designated as a Ramsar site, SPA and SSSI. The site incorporates National Nature Reserves and both RSPB and National Trust manage areas of Poole Harbour. Surrounding habitat is diverse. To the south and west, the Purbecks are dominated by heath and grassland, whereas to the north and east the Poole-Bournemouth conurbation includes a major dock in addition to urban development. Coastal erosion and sea-level rise are potential future concerns, and recreational disturbance may influence patterns of feeding bird distribution at low water.

General bird distribution 2004/05

Area covered 1,563 ha; Mean total birds 15,693; Mean bird density 10.0 birds per ha.

Most of the bays and inlets around the perimeter of Poole Harbour offer suitable habitat for some species at low water. Many abundant species including Shelduck, Teal, Wigeon, Oystercatcher, Redshank and Curlew are found throughout the site at varying density, though most species have discrete areas of highest concentration. Holes Bay supports many wildfowl species, such as Mute Swan, Teal and Wigeon, plus high densities of Black-tailed Godwit. The large expanse of intertidal habitat around Kesworth Point in the far west is favoured by many waders including Oystercatcher, Lapwing, Dunlin, Redshank and Curlew. Other areas of high bird density include Brownsea Island, Arne and Wych Lake.

Comparative bird distribution

Although Poole Harbour has been covered at low tide in most winters, for various reasons counts have tended to be analysed for Core Counts alone. In 2004/05, counts at low water were fed into both schemes, allowing assessment of distributional changes since the last analysis in 1993/94. The distributions of two species undergoing different patterns of change, Dark-bellied Brent Goose and Avocet, are investigated.

In 1993/94, Dark-bellied Brent Goose were present in nationally importance numbers in Poole Harbour. The site remains nationally important for this species, currently holding average numbers slightly higher than in 1993/94. The Medium Alert identified for the species at the site (Maclean *et al.* 2005) indicates a decline that may involve site factors, although the species has undergone general national decline. An interesting pattern emerges in the low tide distribution at Poole Harbour that reflects the site-level decline. Previously favoured areas, where the species was found at high density, show evidence of greatly reduced bird density, and in one case a complete absence. Of these areas, all lie along the south of the harbour, from Brand's Bay to west of Arne. At the former, density dropped from 0.84 birds per ha to just 0.1 birds per ha. Newton Bay was not surveyed in the later winter, but bird density on the count sector west to Wych Lake roughly halved. Middlebere Lake, in the Wych Channel, exhibited the most severe declines, with average counts of over 400 birds down to just seven in 2004/05; to the northeast of Arne, lower numbers in 1993/94 again showed almost total decline by 2004/05, though some movement to Kesworth Point was clear. Interestingly the north of the harbour now supports more geese, compensating to some extent the now vacant areas in the south. Although increased density of birds at Holes Bay and Sandbanks Bay (south of Poole) suggests that there has been some relocation of geese feeding at low tide, decline of the average site density by approximately half reflects the changes in numbers highlighted by WeBS Alerts.

In contrast to Dark-bellied Brent Geese, Avocet numbers at Poole Harbour have undergone a threefold increase between 1993/94 and 2004/05, and although the species has increased nationally, Poole Harbour now holds internationally important numbers of Avocet, more than any other single site in the country. Consequently, Avocets are now present in greater densities on those sectors previously favoured at low tide, and there is evidence that new areas are beginning to be exploited as the numbers in the harbour increase. In the first winter of survey, Brownsea Island Lagoon and Wych Lake were the sole areas used by foraging Avocets at low water (Figure 69: note that dots representing birds feeding in Brownsea Island Lagoon are arbitrarily placed on intertidal areas of the island). Bird density at these areas has risen sharply: from 12.4 to 29.3 birds per ha on Brownsea Island, and from 2.1 to 3.8 birds per

ha at Wych Lake. Another area of the Wych Channel, Middlebere Lake, contains previously unprecedented concentrations of Avocet (3.9 birds per ha), suggesting that this area is an overspill feeding site for increasing numbers of the species. Furthermore, signs of expansion into the north of the harbour (at Lytchett and Holes Bays) suggest that the carrying capacity of the site has not yet been reached. It will be interesting to see whether further colonisation of these areas occurs in future.

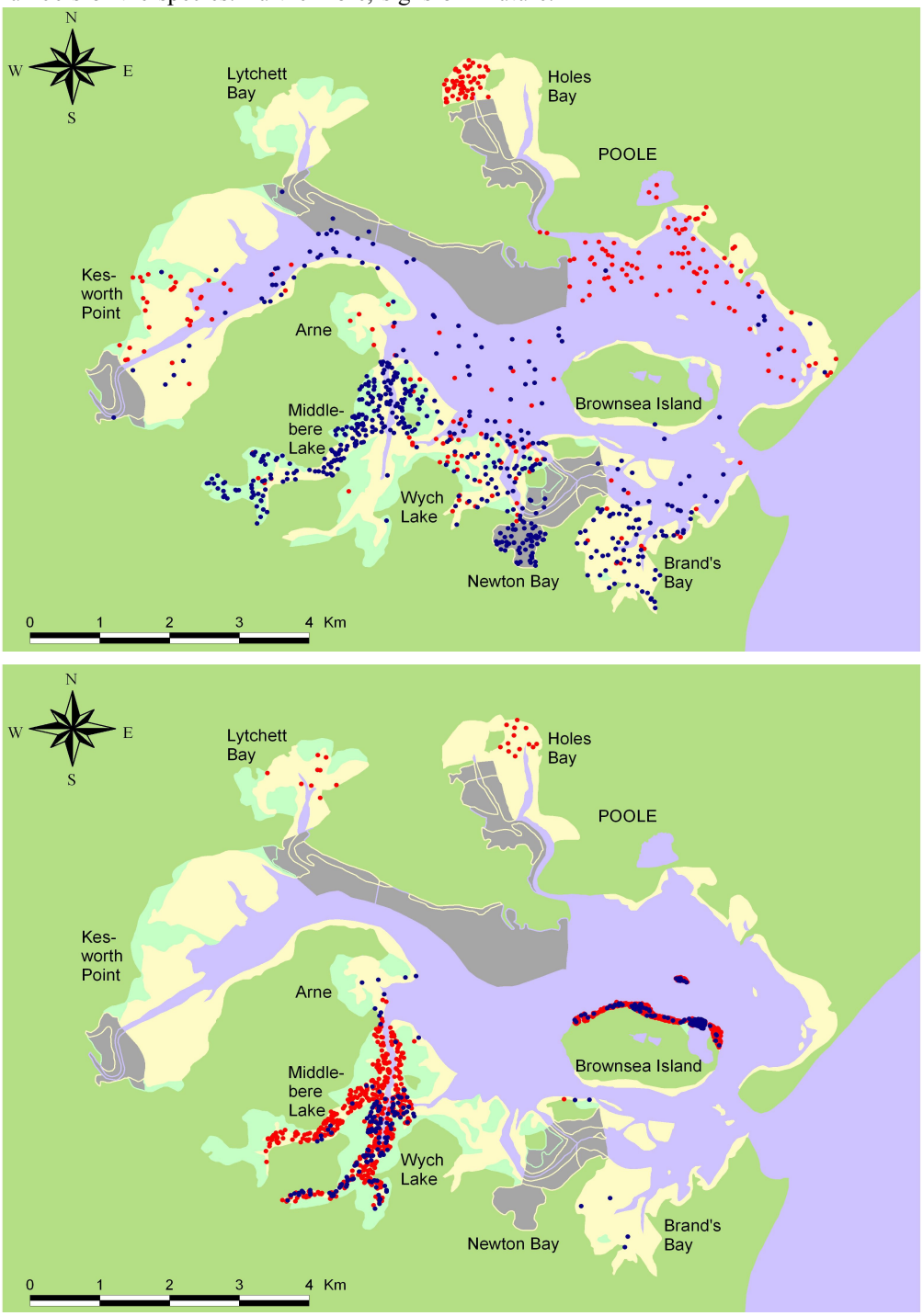

Figure 69. Low Tide distribution of Dark-bellied Brent Geese (above) (1 dot = 2 birds) and Avocet (below) for the winters of 1993/94 (blue dots) and 2004/05 (red). Yellow = intertidal; pale blue = subtidal; pale green = nontidal. Grey areas not counted in later winter.