

Common seal (*P. vitulina*) Counts in Dundrum Bay Update -2011

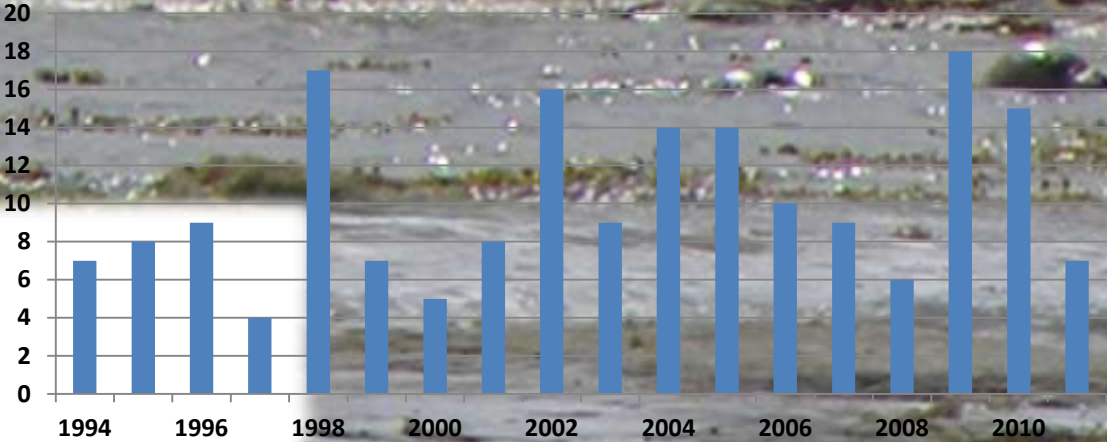


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The main sites for
pups in Dundrum
bay are at
Minerstown

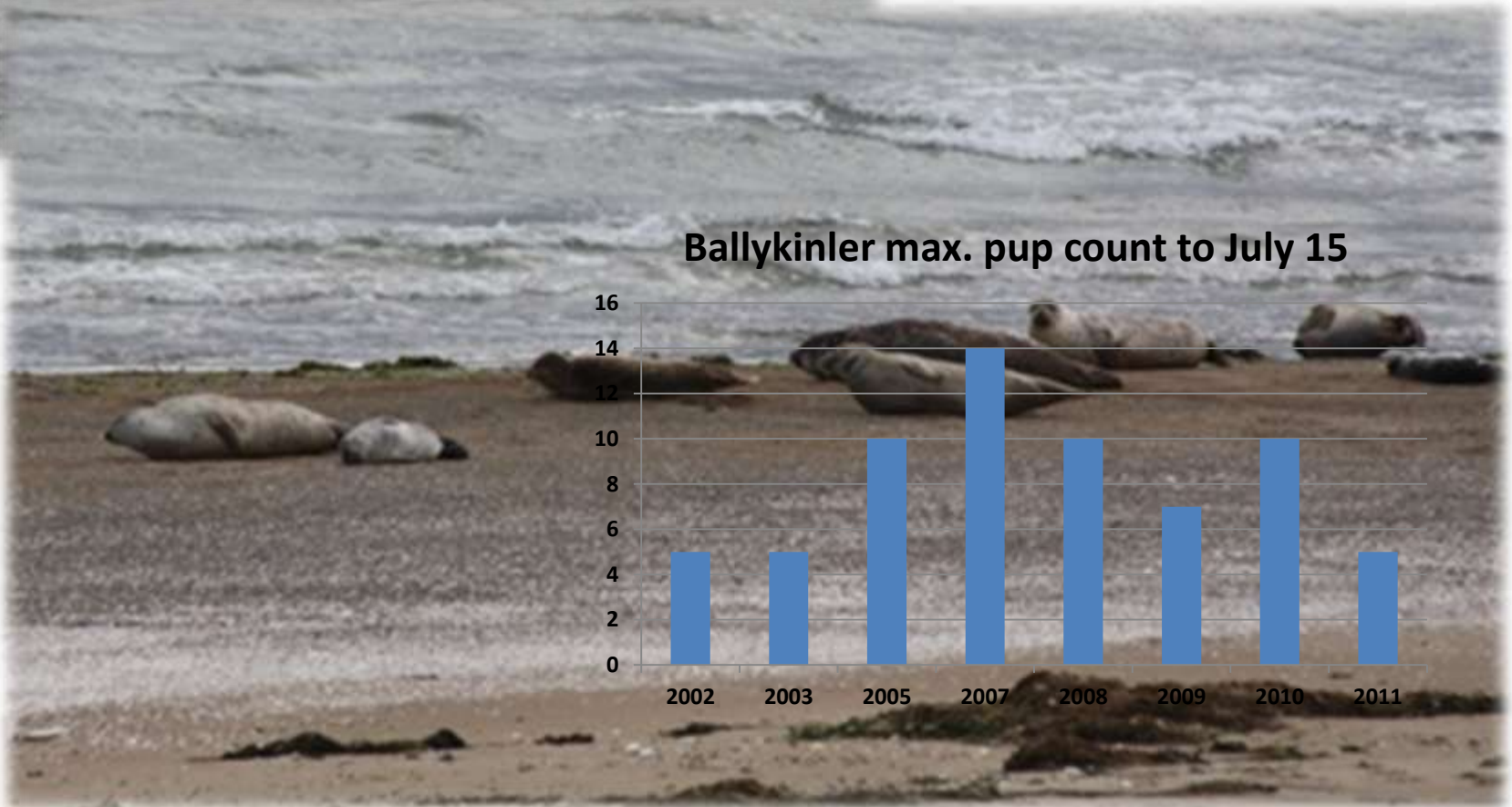


M'town max. pup count to July 15





and Ballykinler





Craigalee counted for 1st time in 2011



The maximum counted was 3 pups and 33 adults in July. Counts fell to almost zero in August.



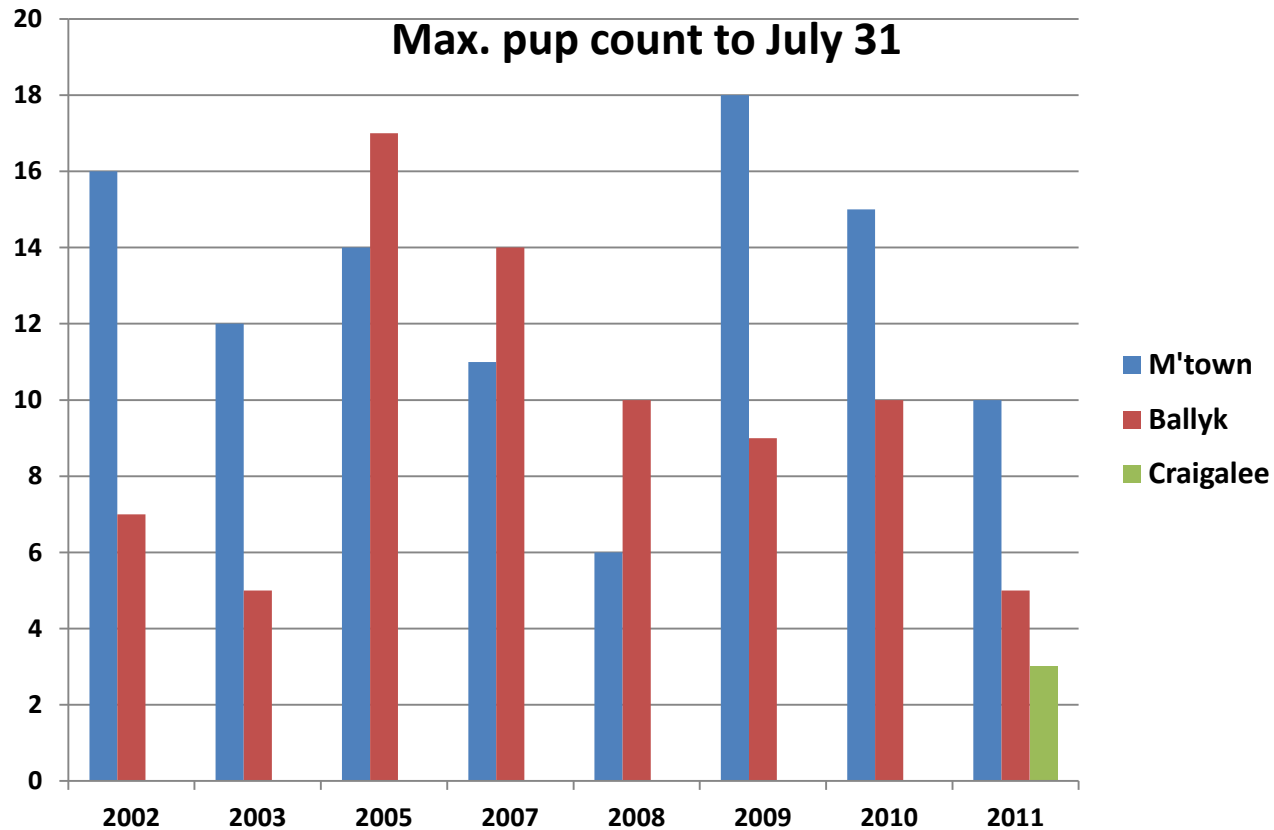
Corely Point was visited 3 times in late June/early July, but since no seals were seen there, monitoring was discontinued during the 2011 season.



**A late pup at Corely Point
August 11 2010**



Comparison of pupping at Ballykinler and Minerstown



Minerstown preferred site for mothers and pups in 2002–03 and again 2009–11
Ballykinler preferred site 2005–08; Craigalee counted for 1st time in 2011

At Minerstown small groups of pregnant females and mothers with newborn pups gather in late June and early July



These maternity groups are not seen at Ballykinler. Some stranded newborn pups have been found at Craigalee since 2008. Possibly pups are now born at Craigalee and transfer to Ballykinler



Adult (A) and juvenile (SA) seals (1+ years of age) have been counted every summer Between June 15 and September 1st.

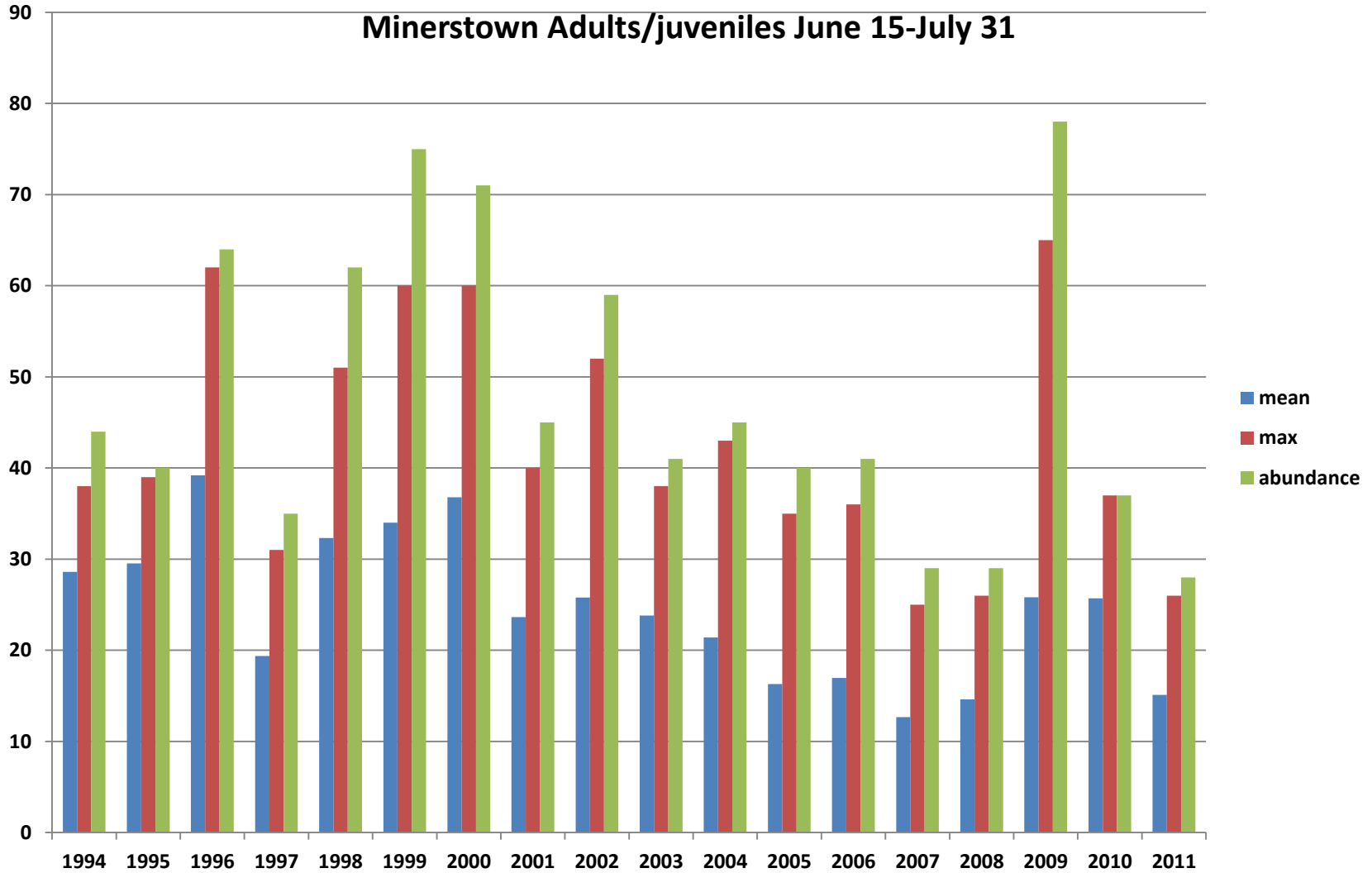
Because the numbers visible at the haul-out site vary greatly from day to day, a minimum of five counts at both sites have been made between June 15th–July 31st and again between Aug 1st–Sept 1st in most years.

From these counts the average (C_x), highest (C_{max}) and second highest counts (C_{max-1}) are taken, and from these the average proportion of seals (P_{av}) Visible at the haul-out site is calculated from the 'Olesiuk' equation:

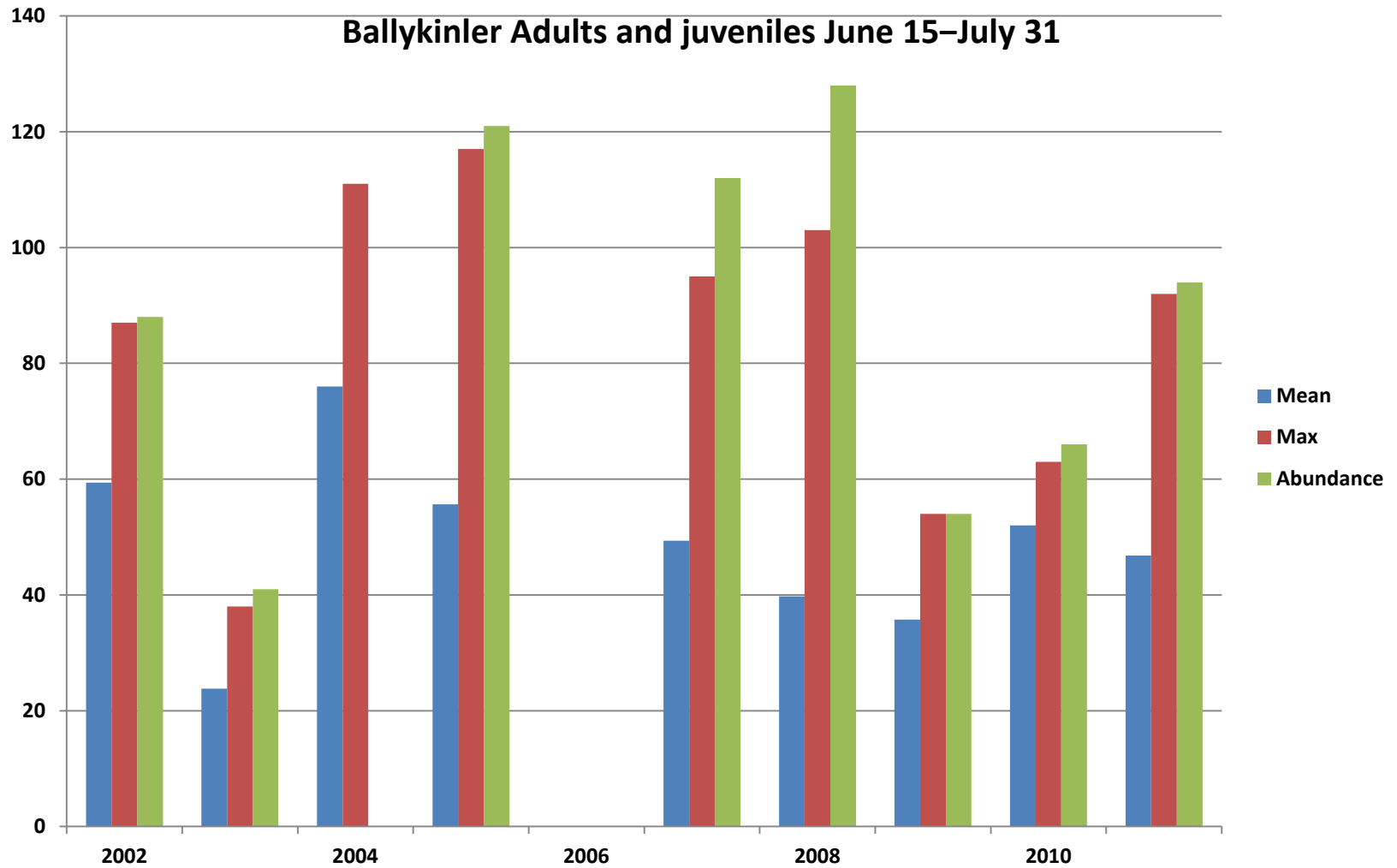
$$P_{av} = C_x / [C_{max} + (C_{max} - C_{max-1})]$$

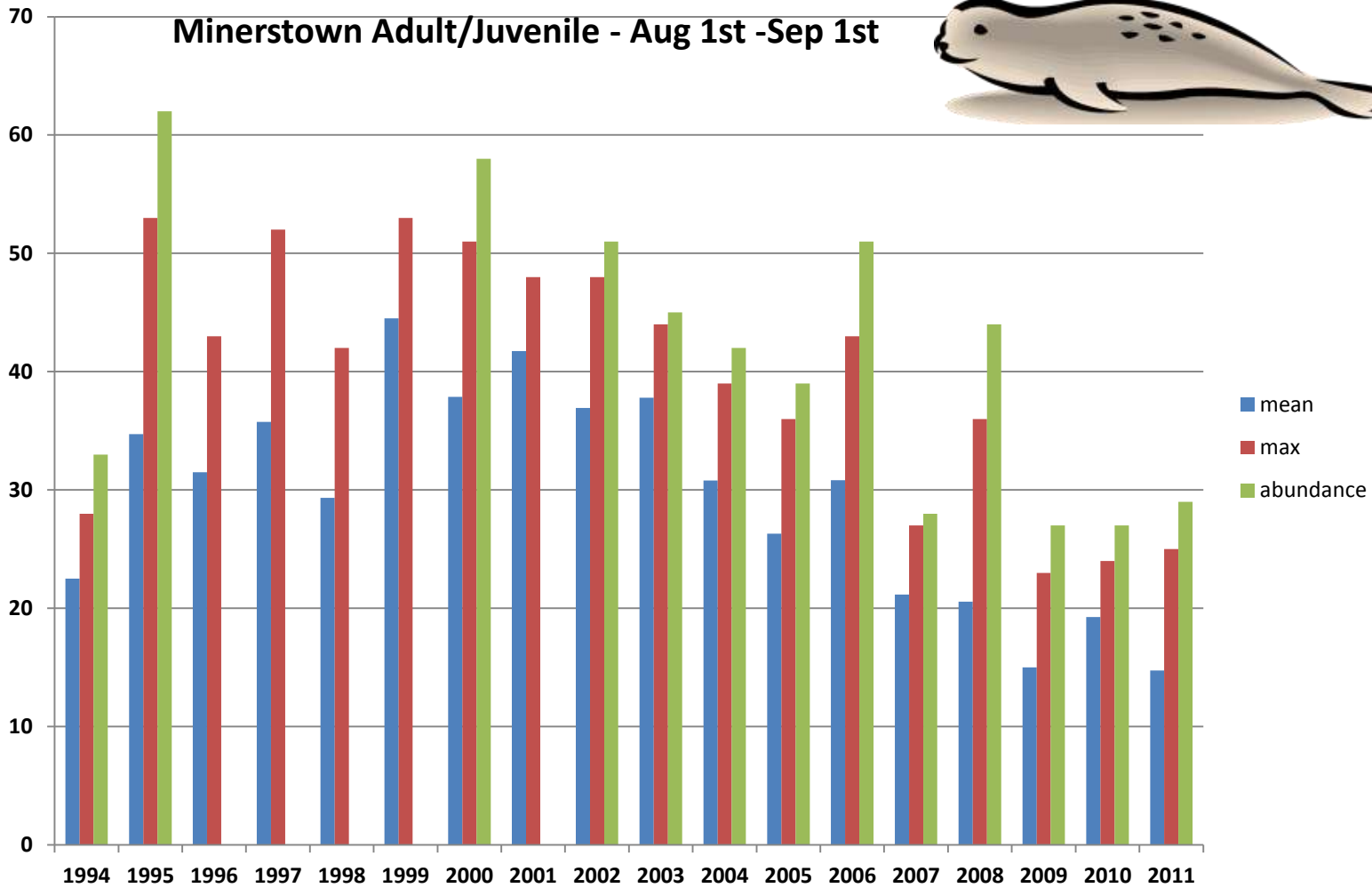
From P_{av} , an estimate of the total abundance of seals in the area is then estimated by C_x / P_{av} .

This abundance estimate should give an idea of the total number of seals using the site - including those foraging at sea at the time of the count - during the chosen period (June-July or August).



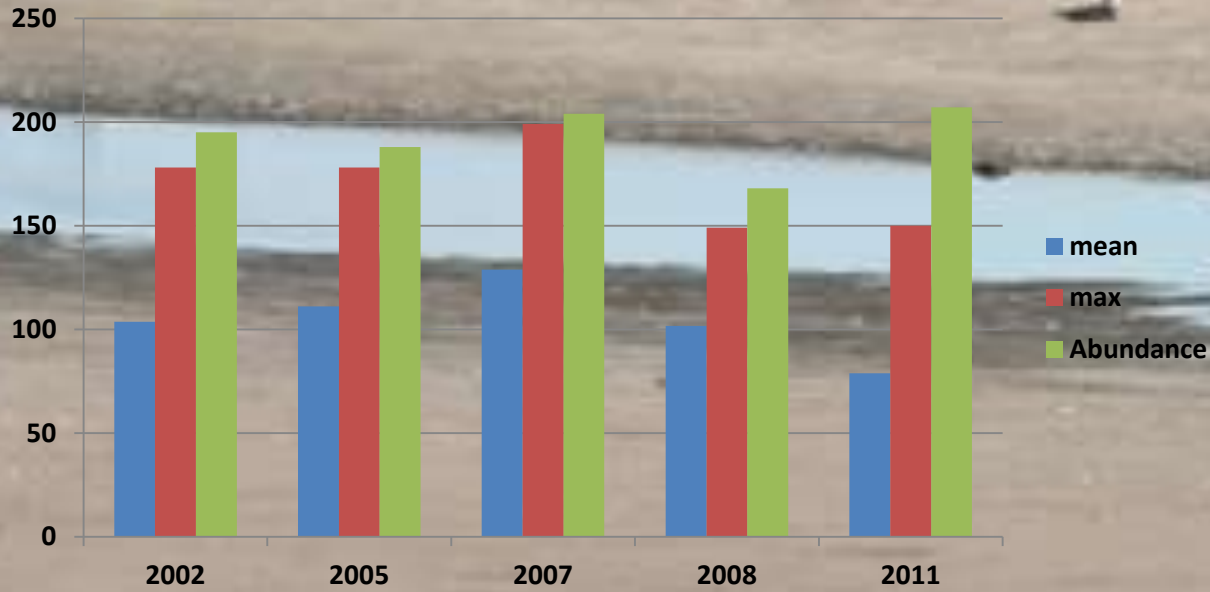
Ballykinler Adults and juveniles June 15–July 31





The number of adults and juveniles using Minerstown for moulting in August seems to be decreasing

Ballykinler appears to be the preferred moulting site in August



Proportion of seals visible at site

The overall average proportion of seals estimated to be using the Minerstown and Ballykinler sites that were visible at the sites during counts in all years of monitoring are shown in the table

	Minerstown	Ballykinler
June 15-July 31	0.52 (0.33-0.74)	0.55 (0.31-0.79)
Aug 1- Sep 01	0.63 (0.56-0.84)	0.56 (0.38-0.63)

No difference in average proportions seen at the site was found between the two sites. A significant difference ($P = 0.009$; 2-tailed T test) was found between the June/July and August periods at Minerstown, but not at Ballykinler. This is surprising, since a higher proportion of seals hauled out during the August moult would usually be expected. Possible reasons for the relatively low average proportions at Ballykinler may include disturbance (joggers, dog-walkers, recreational boating).

TOTAL ABUNDANCE ESTIMATES FOR COMMON SEALS IN DUNDRUM BAY **AUGUST**



Proportion of seals, P_{av} , hauled out:

$$P_{av} = C_x / [C_{max} + (C_{max} - C_{max-1})]$$

$$\text{Abundance} = C_x / P_{av}$$

	Ballykinler	Minerstown	Dundrum Bay
2002	195	48	243
2003	110*	45	155
2005	188	39	227
2007	204	28	232
2008	168	44	212
2009	nc	27	nc
2010	106**	27	131
2011	207	29	236

* no counts in 2nd half of August in 2003

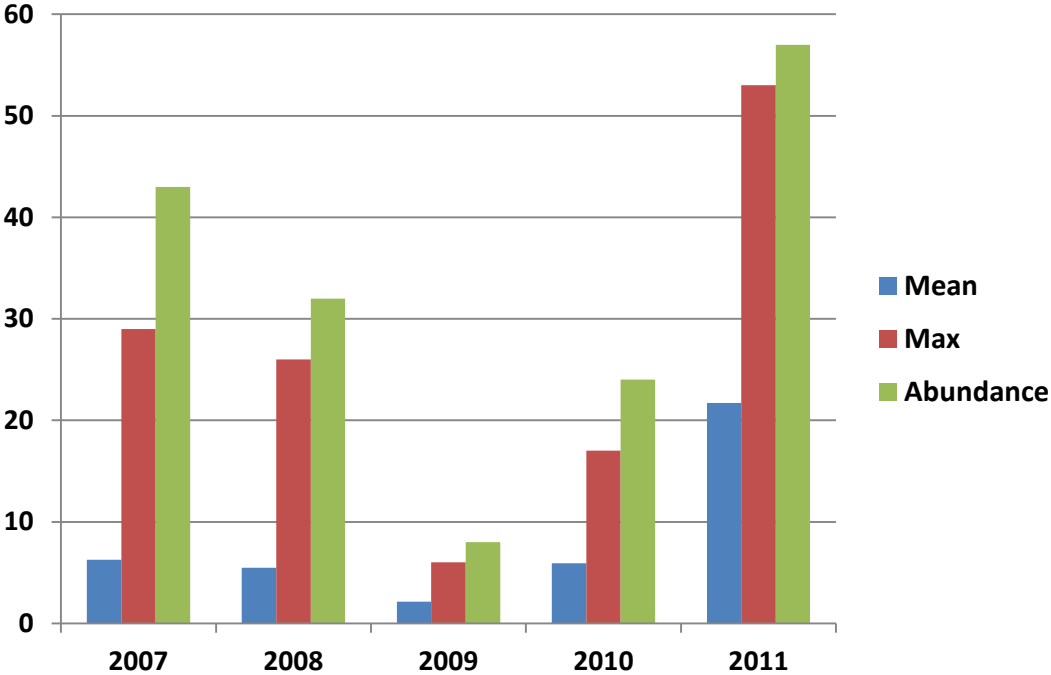
** no counts after August 17 in 2010

Grey seals at Ballykinler, July-Aug



Grey seals almost never haul out at Minerstown and have not been seen at Craigalee, but varying numbers occur at Ballykinler. In 2008 an adult male grey seal was observed to kill and eat a small seal and one other freshly disembowelled newborn was collected. At all other times grey seals have co-existed peacefully beside and within the common seal group.

Grey seals at Ballykinler



	2007	2008	2009	2010	2011
Abundance July-Aug	43	32	8	24	57



Tara Seal Research

www.sealresearch.org



This monitoring programme is continuing on a voluntary basis. Special thanks in the 2011 summer season are due to Philip Nye for his counts at Minerstown, and to Judith Engelke and Dan Russell who made the Ballykinler counts throughout the 2011 season. We would also like to thank the National Trust at Murlough, Co. Down, for facilitating the Ballykinler observations in 2011.