

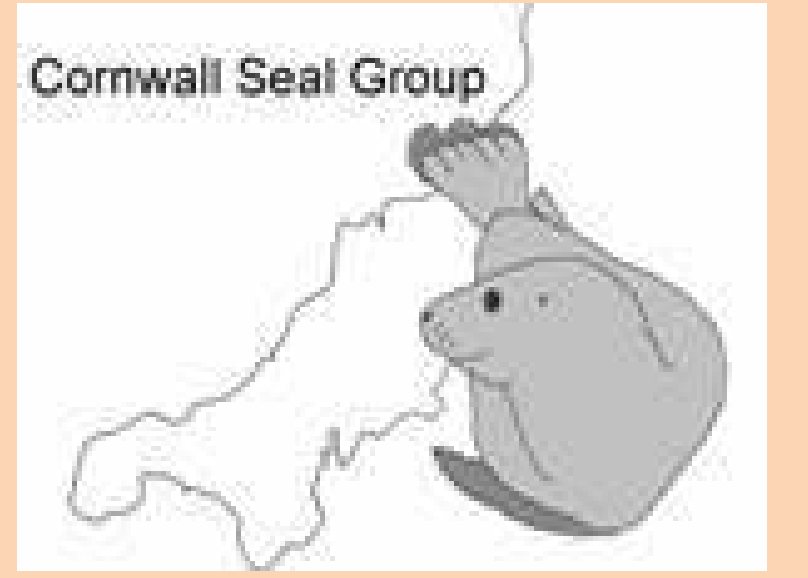


Sue Sayer

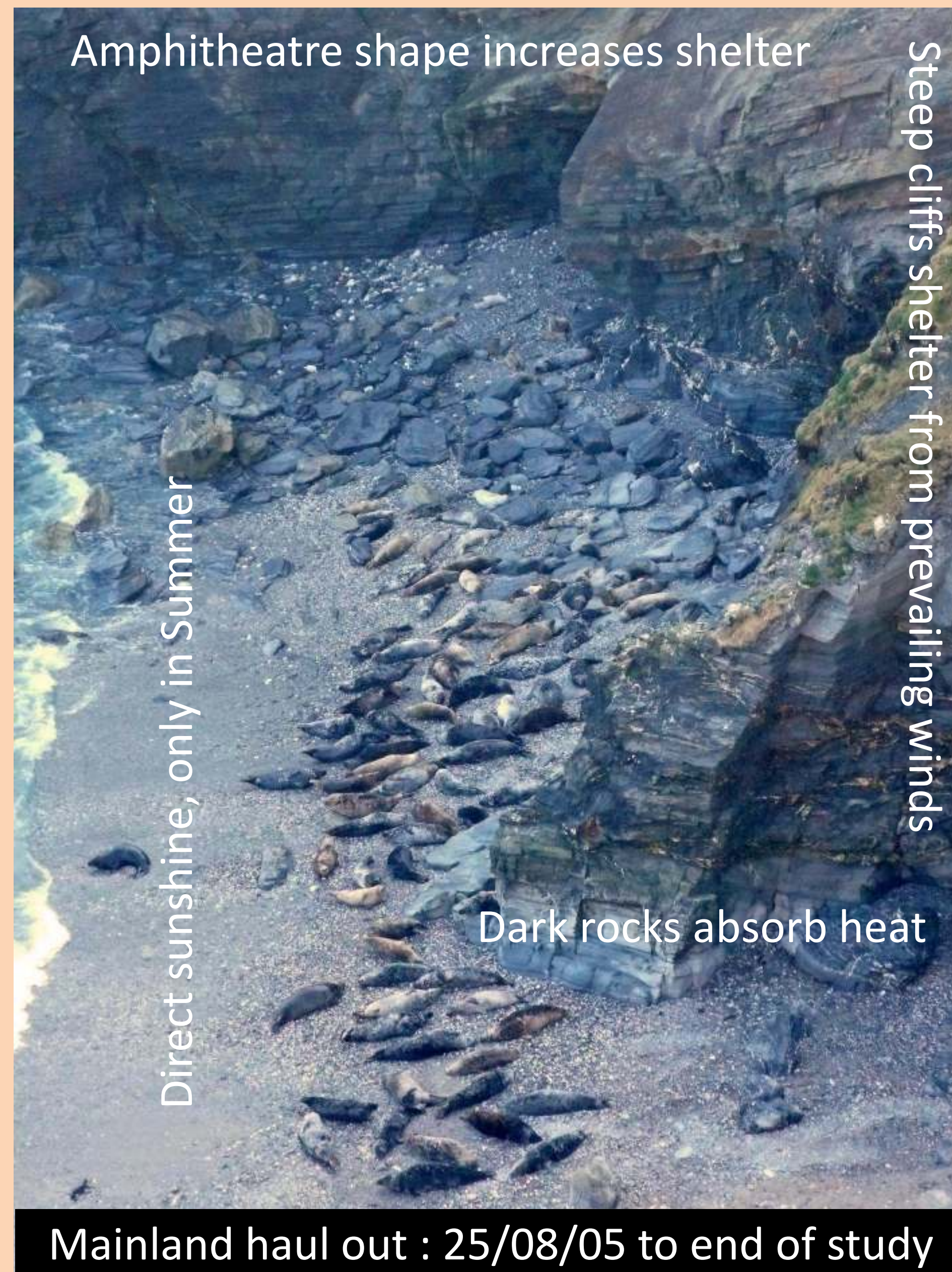


Dan Jarvis

Abundance monitoring and photo identification at a seasonally changing grey seal (*Halichoerus grypus*) site in Cornwall, UK



Offshore haul out : 25/05/05 to 25/08/05



Mainland haul out : 25/08/05 to end of study

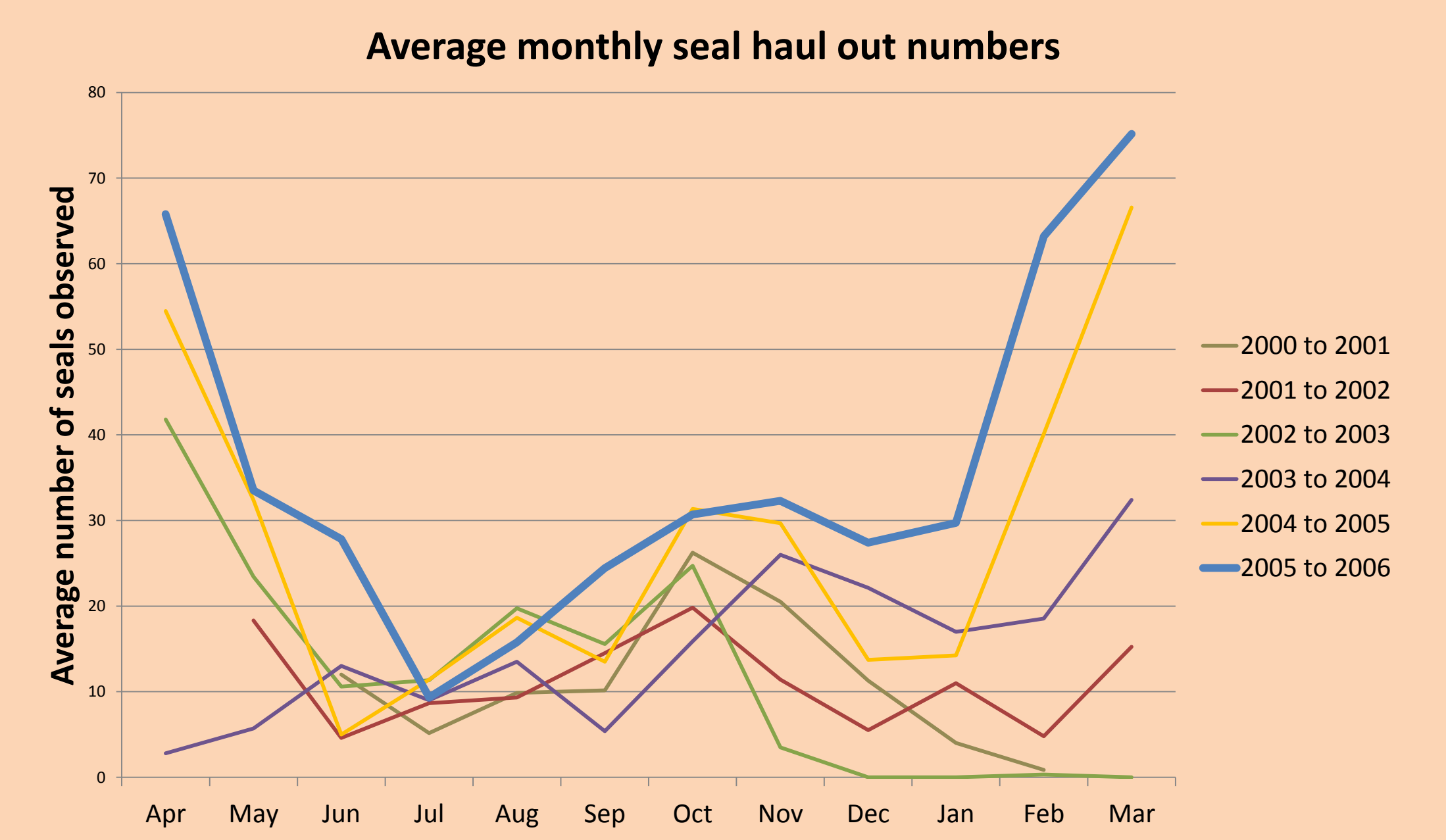
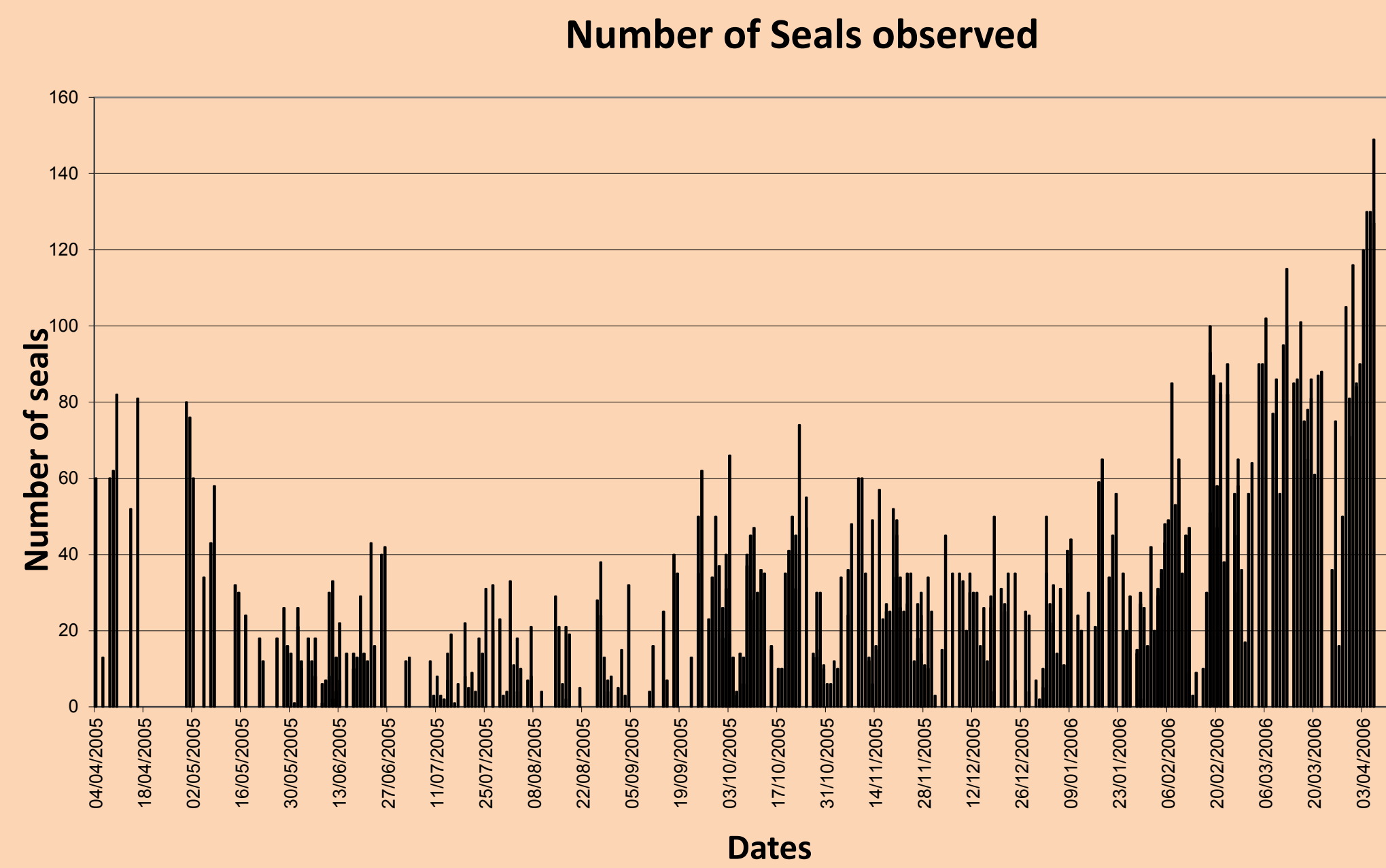


Cornwall Seal Group volunteers

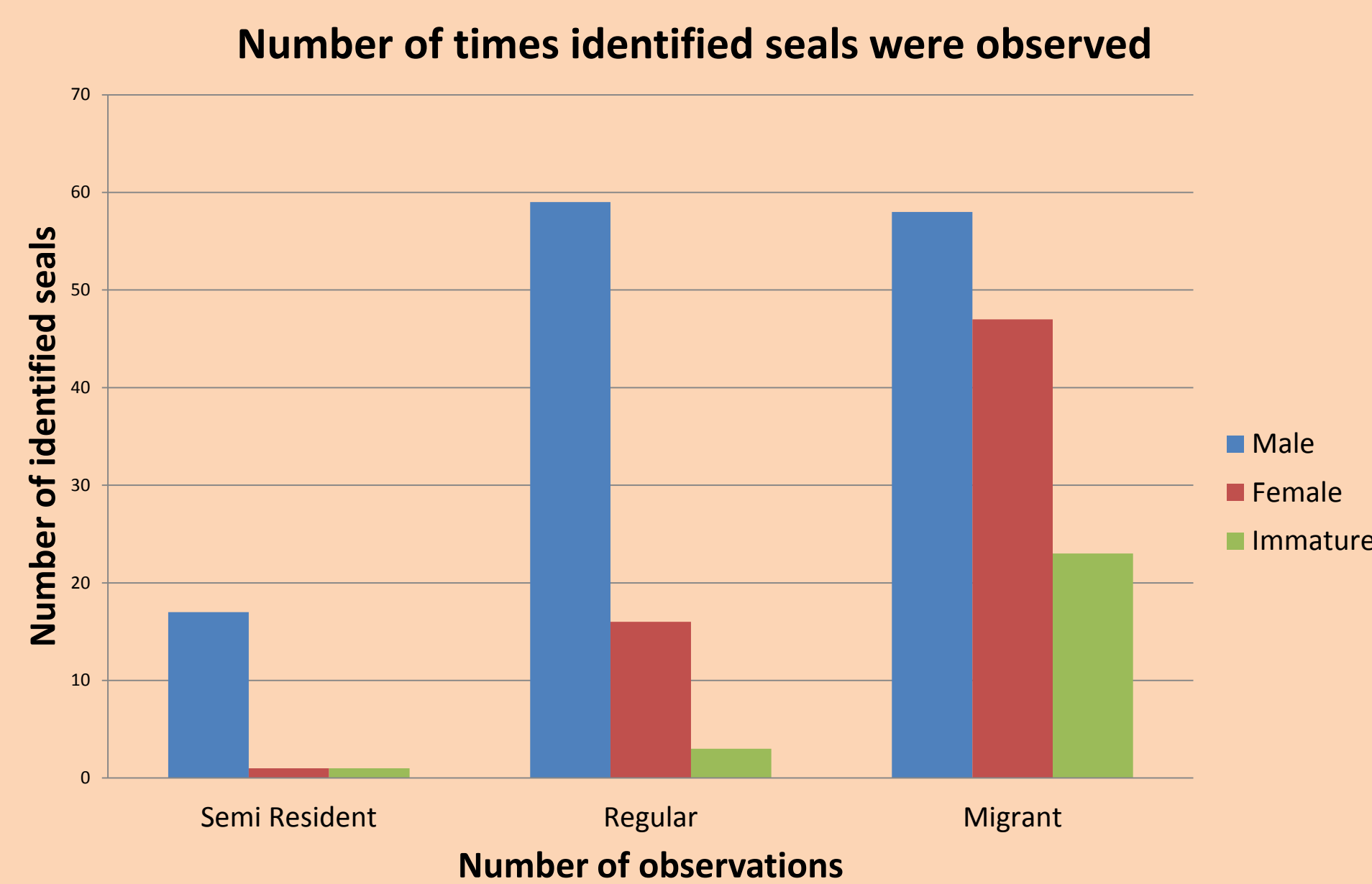
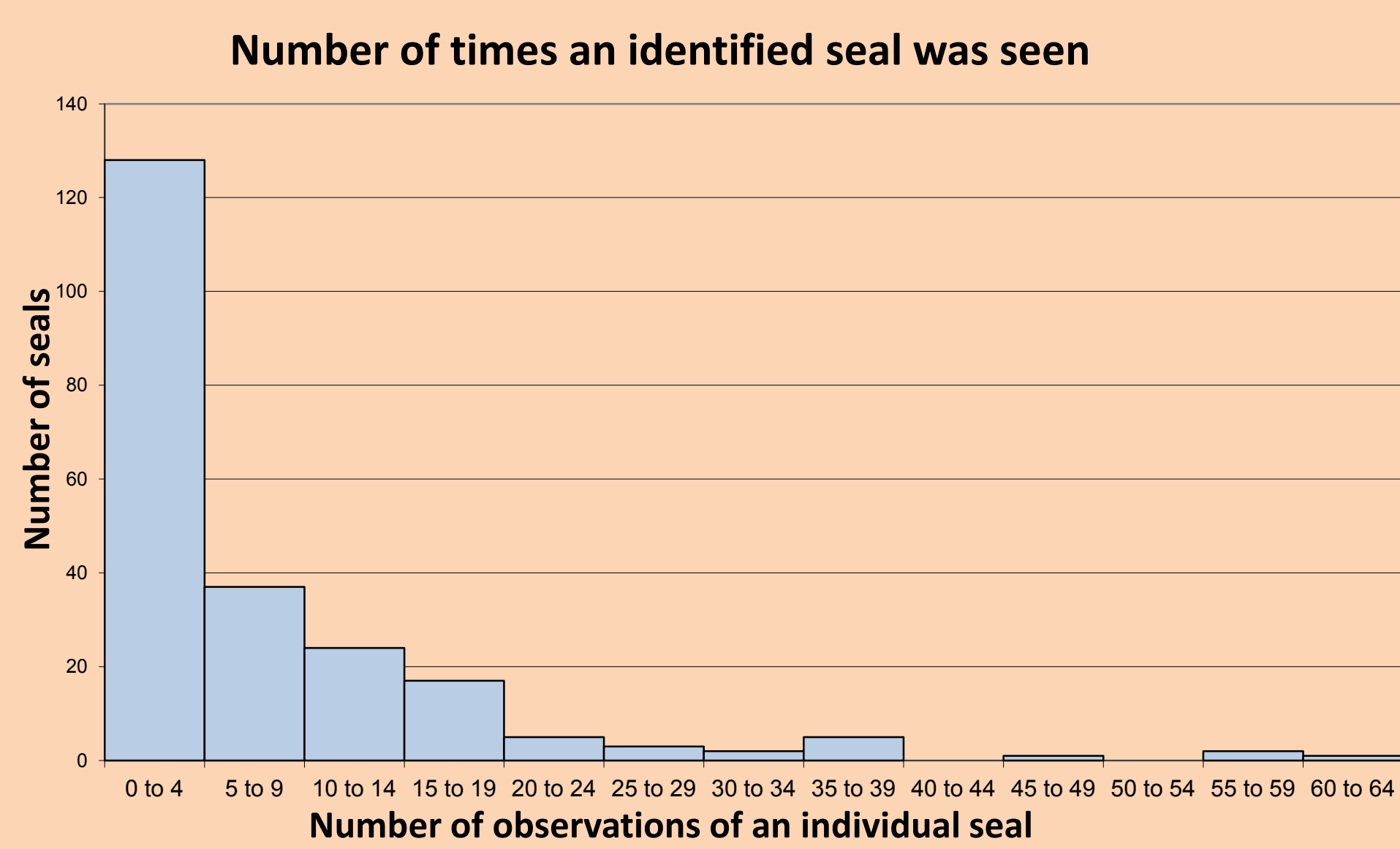
Cornwall Seal Group, a voluntary group of interested individuals, students and conservationists, have monitored one grey seal site on the north Cornwall coast since 2000. Previous results led to the formulation of 2 hypotheses for the study period April 2005 to March 2006. Observers recorded seal numbers, gender, environmental factors & took digital photos to compare to our photo ID database of 600+ seals.

Hypothesis 1 : Most seals are present during the moulting and breeding seasons : **PROVED!**

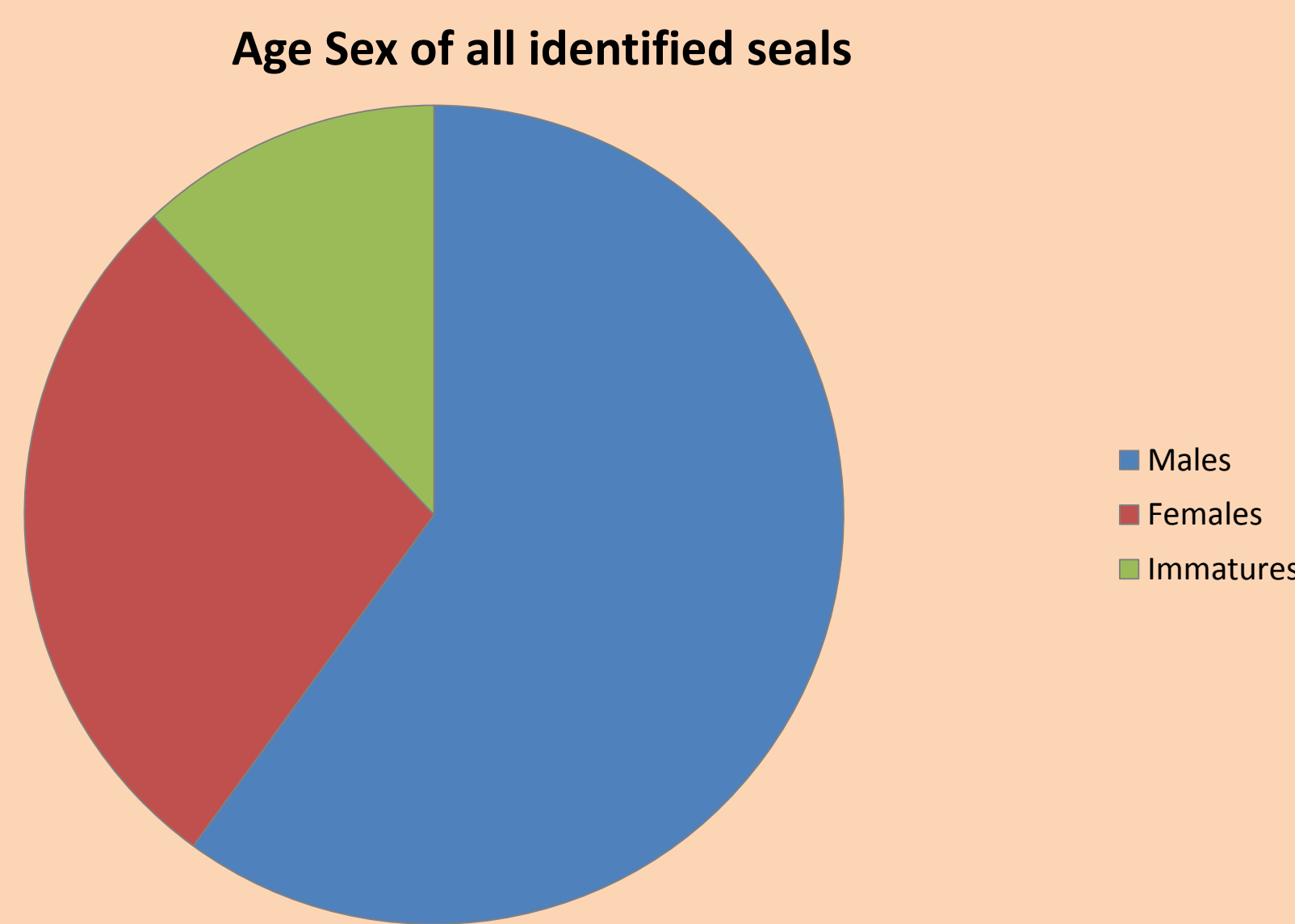
384 observations were made on 261 days (72% of days in the year) by 7 sets of observers. The number of seals ranged from 1 to 149, with an average of 35 seals per observation. Results showed average monthly seal numbers peaked three times, the smallest during October - November 2005, coinciding with the breeding season. The larger peaks occurred in April 2005 and March 2006, the main moulting periods. Seal numbers decreased significantly during the Summer, coinciding with the seals' relocation from the mainland to the smaller offshore island haul out. This relocation may link to increased air temperatures, direct sunlight and sheltered morphology, making the mainland haul out uncomfortably hot for seals in the Summer.



Hypothesis 2 : This is a static colony of 30 to 40 seals : **DISPROVED!**



227 different seals were photo identified during the study period. Seals spent different amounts of time at this north coast site. As the most frequently identified seal, DP122 was only seen on 23% of observations, no seals were classed as 'Resident'. Seals were classed as 'Semi Resident' (19 seals, 8%, seen more than 20 times); 'Regulars' (79 seals, 35%, were seen between 5 and 19 times) and 'Migrants' (129 seals, 57%, were seen less than 5 times.) On average, we identified 15% of the seals present during an observation, although our longer term average ID rate is 30% (21/02/04 to 11/02/08.) This may suggest that the number of seals visiting this site may be between 757 and 1513 seals.



Of the 227 seals identified, most were males (60%) with 28% females and 12% being immature seals. This is a male dominated seal haul out site. When gender is correlated with frequency of visit, females seem slightly over represented in the 'Migrant' category, so they spend less time at these haul outs. Males are heavily over represented in the 'Semi Resident' category, spending longer at this site.



S7 : Semi Resident



DP120 : Regular



S18 : Migrant



DP122 : Most observed seal



S56 Spectacles

Sample photo ID database page

This is a very significant site for grey seals in Cornwall, which needs conservation status.

Future study will explore links between this and other sites across the Celtic Fringe.