

Puffin burrow occupancy and breeding success on Skomer in 2014

Puffin burrow occupancy and breeding success in the new study plot at The Wick for 2014 is shown in table 1.

Table 1 Burrow occupancy and breeding success of Puffins at The Wick on Skomer Island in 2014

Burrow distance from the cliff edge (m)	Total No. burrows	No. occupied burrows	% Occupied	No. of chicks based on 2 (3+) feeds	Productivity based on 2 (3+) feeds
5-10	51	38	74.5%	24	0.63

Burrow occupancy was established over thirteen evening watches, from 18:30 to dusk, between the 7th May and the 1st June. Possibly due to the exceptionally rough winter this year mating was delayed and some birds were still mating until the end of May and actively nest-building into early June.

The first adult Puffins carrying fish were seen coming ashore on 4th June. However it was not until the second week of June that most birds started to feed chicks, suggesting the majority of birds did not lay until May.

As recommended in previous JNCC reports, feeding watches were carried out every two weeks from the first date adults were seen bringing in fish. The last feeding watch was carried out earlier (31 July) as the majority of chicks had fledged so waiting two weeks would have been too late to carry out the last feeding watch.

Due to the protracted breeding season this year, four 24 hour watches had to be done:

04:30 – 22:30 on 24 June: roughly two weeks after the first adults were seen coming in with fish.

04:30 – 22:30 on 10 July: the oldest chicks should still be under 38 days old so none should have fledged and therefore should have been recorded being fed on both watches if they survived. Chicks hatched since the first watch were now being fed as well.

04:30 – 22:30 on 24 July: the very oldest chicks will have fledged but any chicks hatched since the first watch should only be an absolute maximum of 31 days old and therefore fed on the second and third watches.

04:30 – 22:00 on 31 July: most chicks should have fledged and only the very latest chicks should still be being fed

For a burrow to be considered successful it had to have been fed during at least two watches. This gives a success rate of 63% (or 0.63 chicks fledged per burrow). Although a chick was seen to come from one burrow on several occasions that had only recorded feeds during one watch, chicks were also seen coming out and exercising from burrows during feeding watches that had not been fed during that watch.

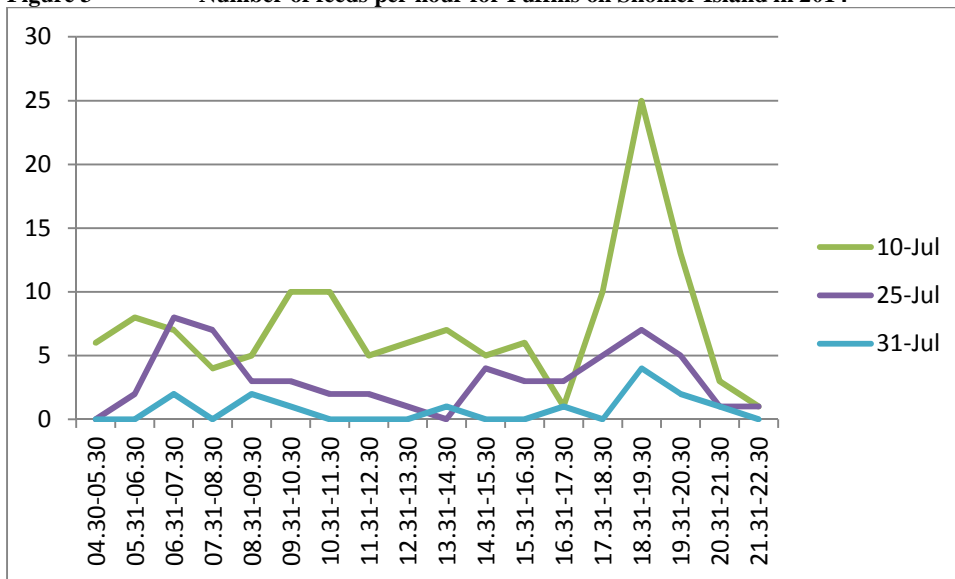
14.3 Feeding rates

Details of feeding rates were recorded as follows:

Table 2 Feeding rates of Puffins at The Wick on Skomer Island in 2014

	24 June	10 July	25 July	31 July
No. of burrows to which feeds were recorded	25	23	17	8
Total No. recorded feeds	90	128	57	14
Mean No. feeds per burrow (range)	3.8 (1-7)	5.6 (2-9(14))	3.4 (1-8)	1.8 (1-4)

Figure 3 Number of feeds per hour for Puffins on Skomer Island in 2014



Note: data from first watch not included as feeding rates were recorded in three hour time slots instead of hourly.