

Of 217 nests viewed on 6 June, no chicks were seen, though a very small number were suspected protected by raised sitting adults. Also on 6 June around four empty broken hatched eggshells were seen at base of north abutment. On 1 June Kathy Evans observed four tiny chicks at Akzo Nobel (two broods of two).

Table 2. 2018 Tyne kittiwake AON (maximum) and minimum breeding productivity summary

| Location | AON (max) (May 23 to June 10) | Chicks (and broods) (July 9 to 18) | Min. prod. | % of failed nests |
|---|--|---|-----------------------|----------------------------------|
| 1. Tynemouth cliffs (natural site) | 243 (2 July) | 203 (76x1, 62x2, 1x3) | 0.84 | 43 % |
| 2. N Shields Ferry Landing | 13 | 16 (8x1, 4x2) | 1.23 | 8 % |
| 3. Port of Tyne, S Shields, Tower | 0 | 0 | --- | --- |
| 4. McNulty, Tyne Dock | 0 | 0 | --- | --- |
| 5. Akzo Nobel, International Paints | 194 | 186 (90x1, 48x2) | 0.96 | 29 % |
| 6. Kittiwake Tower (Gateshead) | 102 | 47 (31x1, 8x2) | 0.46 | 62 % |
| 7. Baltic Flour Mill (Arts Centre) | 123 | 114 (63x1, 24x2, 1x3) | 0.93 | 29 % |
| 8. NCL quay bldgs.: Vermont ApartHot | 1 | 0 | (0.0) | (100 %) |
| 9. NCL quay bldgs.: Shilling (between Vermont ApartHot & Phoenix House) | 0 | 0 | --- | ----- |
| 10. NCL quay bldgs.: Phoenix House | 21 | 16 (12x1, 2x2) | 0.76 | 33 % |
| 11. NCL quay bldgs.: Akenside Studios | 1 | 2 (1x2) | (2.0) | (0 %) |
| 12. NCL quay bldgs.: Akenside Traders | 0 | 0 | --- | ----- |
| 13. NCL quay bldgs.: R/way Bridge, Dean St. | 47 | 25 (21x1, 2x2) | 0.53 | 51 % |
| 14. NCL quay bldgs.: 1 Queen St corner block | 0 | 0 | --- | ----- |
| 15. NCL quay bldgs.: Lombard Ho. | 6 | 7 (3x1, 2x2) | 1.17 | 17 % |
| 16a. NCL qb: Redhouse (opp. Guildhall) | 3 | 1 (1x1) | (0.33) | (67 %) |
| 16b. NCL qb: Rasika, beside (E of) Redhouse | 6 | 2 (2x1) | (0.33) | (67 %) |
| 16c. NCL qb: on top of three street lamps | 3 | 1 (1x1) | (0.33) | (67 %) |
| 16d. NCL qb: Quilted Camel, W of Redhouse | 2 | 1 (1x1) | (0.50) | (50 %) |
| 17. Tyne Bridge – North abutment | 368 | 259 (169x1, 45x2) | 0.70 | 42 % |
| 18. Tyne Bridge – North abutment girders | 79 | 54 (42x1, 6x2) | 0.68 | 39 % |
| 19. Tyne Bridge – South abutment | 176 | 137 (79x1, 29x2) | 0.78 | 39 % |
| 20. Tyne Bridge – South abutment girders | 45 | 32 (20x1, 6x2) | 0.71 | 42 % |
| 21a. Newcastle quayside: Guildhall | 22 | 20 (10x1, 5x2) | 0.91 | (32 %) |
| 21b. NCL qb: floodlight just N from Guildhall | 2 | 2 (1x2) | (1.00) | (50 %) |
| 22. High Level Bridge | 1 | 0 (1 chick lost) | (0.0) | (100 %) |
| 23. Brett Oils / Ovoline | 0 | 0 | --- | ----- |
| Totals (including Tynemouth) | 1,458 | 1,125 (629x1, 245x2, 2x3) | 0.77 | 39.9 % |
| Totals: River Tyne (excluding Tynemouth) | 1,215 | 922 (553x1, 183x2, 1x3) | 0.76 | 39.3 % |

Notes.

- Site 4, the McNulty engineering workshop at Tyne Dock, was demolished in summer 2018. Kittiwakes last successfully nested there in summer 2014.

General Notes.

- **What is a 'failed nest'?** This is an occupied nest on which the adults failed to rear (fledge) any chicks. So, the table records a short-hand term 'percentage of failed nests' which represents 'percentage of pairs which fail'. These 'failed nest' percentage figures are rounded to the nearest whole percentage, while one decimal place has been retained for the rows dealing with totals.

Table 3. Tyne kittiwake minimum productivity and nest failure (summary) during 2017 and 2018

| Location | 2017 Min. prod. | 2017 % of failed nests | 2018 Min. prod. | 2018 % of failed nests |
|--|--------------------------------|---------------------------------------|--------------------------------|---------------------------------------|
| 1. Tynemouth cliffs (natural site) | 1.11 | 22 % | 0.84 | 43 % |
| 2. N Shields Ferry Landing | 1.13 | 20 % | 1.23 | 9 % |
| 5. Akzo Nobel, International Paints | 1.22 | 18 % | 0.96 | 29 % |
| 6. Kittiwake Tower (Gateshead) | 0.73 | 41 % | 0.46 | 62 % |
| 7. Baltic Flour Mill (Arts Centre) | 1.18 | 13 % | 0.93 | 29 % |
| 10. NCL quay bldgs.: Phoenix House | 1.24 | 20 % | 0.76 | 33 % |
| 13. NCL quay bldgs.: R/way Bridge, Dean St. | 1.05 | 25 % | 0.53 | 51 % |
| 17. Tyne Bridge – North abutment | 0.89 | 31 % | 0.70 | 42 % |
| 18. Tyne Bridge – North abut. girders | 0.94 | 27 % | 0.68 | 39 % |
| 19. Tyne Bridge – South abutment | 1.04 | 25 % | 0.78 | 39 % |
| 20. Tyne Bridge – South abut. girders | 0.78 | 30 % | 0.71 | 42 % |
| 21a. Newcastle quayside: Guildhall | 1.29 | 13 % | 0.91 | (32 %) |
| Overall (including Tynemouth) | 1.03 | 24.7 % | 0.77 | 39.9 % |
| Overall: River Tyne (excluding Tynemouth) | 1.01 | 25.5 % | 0.76 | 39.3 % |

Part Two: Individual Tables

Table 4. Tyne Bridge north abutment, apparently occupied nests 2018

| Aspect | AON 29 May 2018 | AON 8 June 2018 | Max AON 29 May / 8 June |
|-------------------|----------------------------|----------------------------|------------------------------------|
| Abut: North | 94 | 81 | 94 |
| Abut: South | 121 | 122 | 122 |
| Abut: East | 78 | 69 | 78 |
| Abut: West | 74 | 74 | 74 |
| Girders: East, S | 15 | 18 | 18 |
| Girders: West, S | 10 | 10 | 10 |
| Girders: under, S | 51 | 49 | 51 |
| Total | 443 | 423 | 447 |

Table 5. Tyne Bridge south abutment, apparently occupied nests 2018

| Aspect | AON 23 May 2018 | AON 7 June 2018 | Max AON 23 May / 7 June |
|------------------|----------------------------|----------------------------|------------------------------------|
| Abut: North | 60 | 74 | 74 |
| Abut: South | 13 | 17 | 17 |
| Abut: East | 66 | 65 | 66 |
| Abut: West | 13 | 19 | 19 |
| Girders: East, N | 8 | 9 | 9 |
| Girders: West, N | 6 | 8 | 8 |
| Girders: East, S | 27 | 24 | 27 |
| Girders: West, S | (1 trace) | 1 | 1 |
| Total | 193 | 217 | 221 |

Table 6. Baltic Arts Centre (Gateshead), 2018

| Aspect | AON 23 May 2018 | AON 7 June 2018 | Max AON 23 May / 7 June |
|--------------|--------------------|--------------------|----------------------------|
| North 1 | 75 (+4 trace) | 80 | 80 |
| North 2 | 21; +5 (windows) | 24; +7 (windows) | 24; 7 (windows) |
| North 3 | 4 | 3 | 4 |
| East | 2 (+6 trace) | 8 | 8 |
| Total | 107 | 122 | 123 |

Notes, BFM.

North 1: main ledge under 'Baltic Flour Mills' lettering

North 2: ledge above 'Baltic Flour Mills' lettering, and on assoc. window ledges

North 3: below viewing platform (level 4, facing east)

Table 7a. Saltmeadows Tower (Gateshead), 2018

| Aspect | AON 29 May 2018 | AON 6 June 2018 | Max AON 29 May / June |
|--------------|--------------------|--------------------|--------------------------|
| NE | 42 | 43 | 43 |
| NW | 40 | 42 | 42 |
| S | 15 | 17 | 17 |
| Total | 97 | 102 | 102 |

Table 7b. Saltmeadows Tower (Gateshead), 2018

| Aspect | AON (max) 29 May - 6 June | Chick broods 9 July 2018 | Chicks total | Productivity Chicks / AON | % of failed nests |
|--------------|------------------------------|-----------------------------|-----------------|------------------------------|----------------------|
| NE | 43 | 20 x 1, 5 x 2 | 30 | 0.70 | 42 % |
| NW | 42 | 11 x 1, 3 x 2 | 17 | 0.40 | 67 % |
| S | 17 | 0 | 0 | 0 | 100 % |
| Total | 102 | 31x1, 8 x 2 | 47 | 0.46 | 61.8 % |

Table 8. Akzo Nobel (Felling Shore), AON, 2018 (K. Evans & D M Turner data)

| Aspect | AON 18 May (KE) | AON 25 May (KE) | AON 31 May (DMT) | AON 1 June (KE) | AON 7 June (DMT) | AON 8 June (KE) | AON 15 Ju (KE) | AON 22 Ju (KE) | Max AON |
|--------------|-----------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|----------------------|----------------------|------------|
| A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 16 | 19 | 19 | 20 | 20 | 21 | 22 | 20 | 22 |
| 2 | 9 | 10 | 9 | 11 | 8 | 9 | 7 | 8 | 11 |
| 3 | 59 | 55 | 54 | 60 | 59 | 59 | 58 | 59 | 60 |
| 4 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 5 | 51 | 60 | 55 | 57 | 55 | 57 | 61 | 60 | 61 |
| 6 | 7 | 8 | 9 | 9 | 10 | 9 | 10 | 10 | 10 |
| 7 | 10 | 13 | 14 | 15 | 15 | 13 | 14 | 14 | 15 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 166 | 180 | 175 | 187 | 182 | 183 | 187 | 186 | 194 |

Notes.

Aspect A

Four new ledges on west of site

Aspect 1

Long low ledge to the right (west)

Aspect 2

Next middle ledge to left (east) of Aspect 1

Aspect 3

Concentrated old central section (i.e. moving east)

Aspect 4

Five riverside windows to left (east) of Aspect 3

Aspect 5

'Long low ledge to left' i.e. under Aspect 4 to left of Aspect 3

Aspect 6

Windows back from river, upper right of and below 'Akzo Nobel' lettering

Aspect 7

Windows back from river, upper left of and below 'Akzo Nobel' lettering

Aspect 8

Windows back from river, lower row of windows below 'Akzo Nobel' lettering

Table 9. Akzo Nobel (Felling Shore), chicks at nests, 2018 (K. Evans & D M Turner data)

| Aspect | 9 July (DMT) | | 13 July (KE) | | 20 July (KE) | |
|--------------|-------------------|------------|-------------------|------------|-------------------|------------|
| | chicks | total | chicks | total | chicks | total |
| A | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 8x1, 1x2 | 10 | 5x1, 3x2 | 11 | 5x1, 3x2 | 11 |
| 2 | 6x1, 1x2 | 8 | 5x1 | 5 | 6x1, 1x2 | 8 |
| 3 | 29x1, 18x2 | 65 | 27x1, 16x2 | 59 | 31x1, 12x2 | 55 |
| 4 | 7x1, 7x2 | 21 | 5x1, 9x2 | 23 | 6x1, 7x2 | 20 |
| 5 | 27x1, 15x2 | 57 | 26x1, 13x2 | 52 | 24x1, 15x2 | 54 |
| 6 | 4x1, 3x2 | 10 | 4x1, 3x2 | 10 | 5x1, 2x2 | 9 |
| 7 | 9x1, 3x2 | 15 | 8x1, 4x2 | 16 | 6x1, 5x2 | 16 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 90x1, 48x2 | 186 | 80x1, 48x2 | 176 | 83x1, 45x2 | 173 |

Notes. Total chicks seen, 15 June (KE, 35), 22 June (KE, 97), 28 July (KE, 133)

Free-flying chicks seen, 9 July (1), 13 July (1), 20 July (9), 28 July (KE, 22)

Table 10. Tynemouth cliffs, 2018

| Aspect | AON 15 June 2018 | AON 2 July 2018 | Chick broods 18 July 2018 | Chicks total | Productivity Chicks / AON (2 July) | % of failed nests |
|--------------|---------------------|---------------------|------------------------------|-----------------|--|----------------------|
| 1 | 93 (+21 tr) | 95 (+9 tr) | 37 x 1, 31 x 2 | 99 | 1.04 | 28 % |
| 2 | 59 (+8 tr) | 64 (+2 tr) | 18 x 1, 16 x 2 | 50 | 0.78 | 47 % |
| 3 | 38 (+4 tr) | 44 (+1 tr) | 15 x 1, 13 x 2, 1 x 3 | 44 | 1.00 | 34 % |
| 4 | 36 (+13 tr) | 40 | 6 x 1, 2 x 2 | 10 | 0.25 | 80 % |
| Total | 226 (+46 tr) | 243 (+12 tr) | 76 x 1, 62 x 2, 1 x 3 | 203 | 0.84 | 42.8 % |

Notes, Tynemouth cliffs.

- Aspect 1 Tynemouth north pier steps to arch 1, plus arches 1 – 13
- Aspect 2 To right of arch 13 up to artificial gap
- Aspect 3 From artificial gap to corner
- Aspect 4 From corner towards King Edward's Bay, fairly straight section.
- tr a 'trace' nest i.e. incomplete and rudimentary
- On 18 July 2018, no free-flying juveniles were recorded

Part Three: Dunstanburgh Castle, Northumberland (Comparative data)

Table 11. Dunstanburgh Castle cliffs, kittiwakes, 2016 – 2018 (Surveys completed by the author)

| Year | AON | Chick broods | Chicks total | Productivity Chicks / AON | % of failed nests |
|------|--------------------|-----------------------------------|-----------------|------------------------------|----------------------|
| 2016 | 211 (11 & 26 June) | 64x1, 38x2, 1x3 (19 July) | 143 | 0.68 | 51.2 % |
| 2017 | 449 (14 June) | 165 x 1, 152 x 2, 3 x 3 (19 July) | 478 | 1.06 | 28.7 % |
| 2018 | 305 (24 June) | 99 x 1, 56 x 2 (21 July) | 211 | 0.69 | 49.2 % |

Notes, Dunstanburgh Castle cliffs.

- At main part of site, one AON count was made on 24 June 2018, resulting in a total of 284: these nests produced chicks (21 July 2018) as follows: 93 x 1 and 52 x 2; i.e. a productivity of 0.69 and nest failure of 49 %
- At the south gully there were 21 AON on 24 June 2018; these nests produced chicks (21 July 2018) as follows: 6 x 1 and 4 x 2; i.e. a productivity of 0.67 and nest failure of 52 %
- 21 July 2018: no free-flying juveniles were seen; and there were four small chicks of around one week in age seen at nests on the north (main) cliffs, all others were older.
- On 24 June: 3 small chicks were seen in nests; 6 trace nests seen at south gully.

Shag nests at Dunstanburgh, 2018:

- 24 June: two nests with nestlings (1 x 1 and 1 x 1-2) at north cliffs
- 21 July: two? nests with nestlings (1 x 3 and 1 x 1?) at north cliffs

Razorbills at Dunstanburgh, 2018:

- 24 June: 84 at north cliffs, plus 63 close by on sea
- 21 July: 5 (adults) at north cliffs

Other observations at Dunstanburgh:

- 24 June: 9 guillemots close on sea (north), no puffins recorded
- 21 July: no guillemots or puffins seen
- 14 August: no razorbills, guillemots or puffins ... either on cliffs or close on sea
- 14 August: kittiwake nestlings 50 x 1, 10 x 2, 11 free-flying juvs (north cliffs);
kittiwake nestlings 1 x 1 (south gully)
- nesting fulmars are recorded separately.

Part Four: Further kittiwake notes, netting issues

During summer 2018 some incidents arose when kittiwakes became entrapped in unsafe deterrent netting installed on certain Newcastle quayside properties. Here is a summary, extracted from a document ('Incidents involving bird-deterrent netting on buildings') prepared by D M Turner (23 Sept 2018):

'Died in netting during 2018: 5 juvenile, 6 adult, 1 unknown age, plus possibly 1-3 unaged
Rescued alive from netting: 2 nestling, 2-4 juvenile, 1 adult, 1 unknown age
Totals: 12-15 died in netting and 6-8 released alive'

There was much concern (including via social media) for these kittiwakes and rescues were necessary including with the fire brigade. After the end of the breeding season, since early September, four meetings have taken place with attendance from Northumbria Police, Newcastle City Council, RSPCA, RSPB, Tyne Kittiwake Partnership, property owners and their agents and associated business managers, also other parties. As a consequence dangerous netting was removed and other measures taken, prior to the end of February 2019, which would not provide the danger of unsafe netting. Let's hope for a safer 2019 breeding season.

Part Five: Comments

Table 2 shows, in Totals row, a single nest with a brood of three from a total of 1,215 occupied nests along the river Tyne i.e. excluding the natural site of Tynemouth cliffs. That is 0.08 % of the total river nests holding a brood of three, a very small percentage. At the Tynemouth cliff site there was also a single brood of three recorded, but from 243 apparently occupied nests i.e. 0.41 % of nests. John Coulson (2011, chapter 8, pages 142-146) discusses how later laying was 'associated with a tendency to lay a smaller clutch'.

An incubation period of 27 days (Coulson 2011) subtracted from date of first hatching (noted as 1 June, see comment above Table 2) gives approximate date of first laying on the River Tyne as 5 May 2018.

Acknowledgements

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References

Coulson, J.C. (2011) *The Kittiwake*. T & A D Poyser.

Coulson, J.C. (2017) Productivity of the Black-legged Kittiwake *Rissa tridactyla* required to maintain numbers. *Bird Study* 64: 84-89.

For some of my annual Tyne kittiwake data from the period 1994 to 2018, please refer to reports and papers attached at the website of the Natural History Society of Northumbria, under 'What we do', 'Conservation and Research', 'Tyne Kittiwakes' <http://www.nhsn.ncl.ac.uk/activities/conservation-research/tyne-kittiwakes/>

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