

## Taxonomic List

### Noteworthy fauna:

The breeding birds on the Tipperne reserve are monitored annually. Other parts of the Ramsar site are only monitored occasionally, with variable focus on different species, depending on the NOVANA programmes target species for the year.

The Tipperne data are reported in annual newsletters – and the recent one witnesses continued problems with declining wader populations, which seems to be linked to a combination of high predation pressure and a five-year run of years with drought during the breeding seasons. The table given below is summarizing some of the data and the development since the 1970s (Thorup & Laursen 2011).

|                                 | Average numbers of breeding pairs in period |           |           |           | Breeding pairs in year |      |
|---------------------------------|---|-----------|-----------|-----------|------------------------|------|
|                                 | 1975-1984                                   | 1985-1994 | 1995-2004 | 2005-2009 | 2010                   | 2011 |
| <i>Anas strepera</i>            | 3   | 4         | 2         | 1         | 2                      | 4    |
| <i>Anas platyrhynchos</i>       | 30  | 44        | 50        | 65        | 57                     | 43   |
| <i>Anas querquedula</i>         | 6   | 6         | 4         | 2         | 0-1                    | 1    |
| <i>Anas acuta</i>               | 15  | 18        | 6         | 1         | 2                      | 2    |
| <i>Anas chpeata</i>             | 16  | 31        | 7         | 4         | 6                      | 2    |
| <i>Circus aeruginosus</i>       | 1   | 2         | 2         | 1         | 2                      | 2    |
| <i>Haematopus ostralegus</i>    | 8   | 18        | 13        | 8         | 8                      | 7    |
| <i>Recurvirostra avocetta</i>   | 252   | 345       | 97        | 68        | 46                     | 28   |
| <i>Pluvialis apricaria</i>      | 0   | 0         | 0         | 0         | 0                      | 1    |
| <i>Vanellus vanellus</i>        | 112   | 192       | 128       | 128       | 100                    | 114  |
| <i>Calidris alpina schinzii</i> | 15  | 115       | 82        | 33        | 22                     | 25   |
| <i>Philomachus pugnax</i>       | 93  | 160       | 75        | 40        | 32                     | 20   |
| <i>Philomachus pugnax</i>       | 55  | 78        | 30        | 20        | 10                     | 11   |
| <i>Gallinago gallinago</i>      | 15  | 16        | 4         | 4         | 2                      | 2    |
| <i>Limosa limosa</i>            | 81  | 153       | 101       | 72        | 67                     | 74   |
| <i>Numenius arquata</i>         | 0   | 0         | 1         | 5         | 3                      | 3    |
| <i>Tringa totanus</i>           | 98  | 507       | 515       | 174       | 74                     | 103  |
| <i>Larus ridibundus</i>         | 174   | 289       | 5         | 2         | 1                      | 0    |
| <i>Larus canus</i>              | 5   | 3         | 2         | 2         | 0                      | 0    |
| <i>Sterna paradiseae</i>        | 50  | 90        | 24        | 10        | 4                      | 1    |

Breeding waterbirds: The table below gives the most recent information about breeding waterbirds in the whole Ramsar site. Published and unpublished data from the NOVANA programme of the Ministry of Environment and DCE, supplemented with data from the Birdlife Denmark citizen science portal DOFbasen on selected breeding species covered by the EEC Birds Directive Annex 1. Numbers given are annual breeding populations of the species listed. Counting intensity varies over the years. Note: 0 does not necessarily mean the species was absent – rather not counted/reported

| Species \ Year                | Breeding population (in pairs) |      |      |      |      |      |
|-------------------------------|--------------------------------|------|------|------|------|------|
|                               | 2004                           | 2005 | 2006 | 2007 | 2008 | 2009 |
| <i>Phalacrocorax carbo</i>    | 2318                           | 1919 | 1505 | 1974 | 2631 | 1834 |
| <i>Botaurus stellaris</i>     | 3                              | 4    | 2    | 3    | 7    | 3    |
| <i>Platalea leucorodia</i>    | 6                              | 7    | 14   | 17   | 21   | 21   |
| <i>Circus aeruginosus</i>     | 4                              | 6,5  | 3,5  | 1,5  | 2    | 3    |
| <i>Porzana porzana</i>        | 1                              | 1    | 1    | 1    | 1    | 1    |
| <i>Crex crex</i>              | 0                              | 0    | 0    | 0    | 1    | 1    |
| <i>Recurvirostra avosetta</i> | 130                            | 117  | 62   | 43   | 63   | 129  |
| <i>Calidris alpina</i>        | 68,5                           | 45   | 40   | 58   | 0    | 0    |
| <i>Philomachus pugnax</i>     | 60                             | 55   | 50   | 11   | 51   | 37   |
| <i>Sterna sandvicensis</i>    | 0                              | 400  | 0    | 0    | 0    | 0    |
| <i>Sterna paradisaea</i>      | 0                              | 11   | 16   | 0    | 0    | 0    |
| <i>Sterna albifrons</i>       | 0                              | 0    | 0    | 0    | 0    | 0    |
| <i>Asio flammeus</i>          | 0                              | 0    | 0    | 0    | 0    | 0    |
| <i>Luscinia svecica</i>       | 0                              | 0    | 1    | 0    | 4    | 1    |

Note: this site has not been subject to intensive monitoring programmes for all species/all years. Missing tern *Sterna* numbers in table might thus represent missing coverage rather than absence of these species some years. “Half pairs” represents a range, 0,5 pair is this 0-1 pair.

Migratory waterbirds: Table giving the most recent information about staging waterbirds in the Ramsar site. Published and unpublished data from the NOVANA programme of the Ministry of Environment and DCE, supplemented with data from the Birdlife Denmark citizen science portal DOFbasen on migratory species of national responsibility (for details see Miljø- og Energiministeriet, Skov- og Naturstyrelsen 1999), and selected migrant species (e.g. some raptors and *Charadrius morinellus*) covered by the EEC Birds Directive Annex 1. Numbers given are annual maxima of the species listed. Counting intensity varies over the years. Note: 0 does not necessarily mean the species was absent – rather not counted/reported. Averages are thus computed based on years with numbers reported.

| Species \ Year             | Annual Maxima |      |      |      |      |      | Average |
|----------------------------|---------------|------|------|------|------|------|---------|
|                            | 2004          | 2005 | 2006 | 2007 | 2008 | 2009 |         |
| <i>Gavia stellata</i>      | 0             | 6    | 1    | 1    | 0    | 1    | 2       |
| <i>Gavia arctica</i>       | 0             | 1    | 0    | 1    | 1    | 0    | 1       |
| <i>Gavia immer</i>         | 0             | 0    | 0    | 0    | 1    | 0    | 1       |
| <i>Podiceps cristatus</i>  | 151           | 206  | 344  | 357  | 218  | 160  | 239     |
| <i>Podiceps grisegena</i>  | 2             | 3    | 1    | 2    | 2    | 14   | 4       |
| <i>Podiceps auritus</i>    | 7             | 0    | 0    | 1    | 0    | 1    | 3       |
| <i>Phalacrocorax carbo</i> | 477           | 2643 | 2509 | 3270 | 5604 | 2478 | 2830    |
| <i>Botaurus stellaris</i>  | 1             | 1    | 1    | 1    | 0    | 2    | 1       |
| <i>Ardea cinerea</i>       | 42            | 5    | 1    | 8    | 24   | 1    | 14      |
| <i>Platalea leucorodia</i> | 41            | 72   | 54   | 64   | 114  | 92   | 73      |
| <i>Cygnus olor</i>         | 1461          | 1164 | 1422 | 1292 | 1276 | 2032 | 1441    |

|                                     |       |       |       |       |       |       |       |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| <i>Cygnus columbianus</i>           | 290   | 508   | 500   | 200   | 372   | 250   | 353   |
| <i>Cygnus cygnus</i>                | 1040  | 2251  | 2000  | 1396  | 1123  | 701   | 1419  |
| <i>Anser fabalis</i>                | 2     | 10    | 45    | 0     | 18    | 6     | 16    |
| <i>Anser fabalis rossicus</i>       | 2     | 0     | 29    | 0     | 0     | 8     | 13    |
| <i>Anser brachyrhynchus</i>         | 8500  | 6082  | 8380  | 7055  | 5500  | 5300  | 6803  |
| <i>Anser albifrons albifrons</i>    | 0     | 0     | 272   | 59    | 92    | 229   | 163   |
| <i>Anser albifrons flavirostris</i> | 1     | 0     | 0     | 0     | 0     | 0     | 1     |
| <i>Anser erythropus</i>             | 0     | 1     | 0     | 0     | 0     | 0     | 1     |
| <i>Anser anser</i>                  | 3605  | 2113  | 2975  | 2090  | 3353  | 3909  | 3008  |
| <i>Branta canadensis</i>            | 3     | 100   | 161   | 72    | 32    | 2     | 62    |
| <i>Branta leucopsis</i>             | 7000  | 15000 | 10000 | 30000 | 12200 | 13000 | 14533 |
| <i>Branta bernicla</i>              | 0     | 0     | 0     | 23    | 1530  | 1     | 518   |
| <i>Branta bernicla bernicla</i>     | 932   | 780   | 711   | 873   | 1530  | 572   | 900   |
| <i>Branta bernicla brota</i>        | 1     | 2     | 6     | 300   | 1     | 5     | 53    |
| <i>Branta ruficollis</i>            | 1     | 1     | 0     | 0     | 0     | 3     | 2     |
| <i>Tadorna tadorna</i>              | 400   | 433   | 144   | 165   | 283   | 330   | 293   |
| <i>Anas penelope</i>                | 10442 | 12614 | 18342 | 9401  | 3410  | 5019  | 9871  |
| <i>Anas strepera</i>                | 51    | 94    | 100   | 126   | 25    | 8     | 67    |
| <i>Anas crecca</i>                  | 6131  | 4278  | 5136  | 5307  | 2175  | 5005  | 4672  |
| <i>Anas platyrhynchos</i>           | 3108  | 2678  | 2336  | 2307  | 2120  | 1080  | 2272  |
| <i>Anas acuta</i>                   | 1094  | 731   | 1015  | 1434  | 1009  | 835   | 1020  |
| <i>Anas querquedula</i>             | 3     | 0     | 2     | 0     | 2     | 3     | 3     |
| <i>Anas chrypeata</i>               | 374   | 506   | 538   | 248   | 213   | 200   | 347   |
| <i>Aythya ferina</i>                | 195   | 200   | 613   | 250   | 243   | 262   | 294   |
| <i>Aythya fuligula</i>              | 480   | 330   | 1070  | 455   | 1000  | 998   | 722   |
| <i>Aythya marila</i>                | 42    | 3     | 150   | 10    | 17    | 17    | 40    |
| <i>Somateria mollissima</i>         | 0     | 3     | 2     | 7     | 0     | 4     | 4     |
| <i>Melanitta nigra</i>              | 5     | 300   | 8     | 12    | 1     | 21    | 58    |
| <i>Melanitta fusca</i>              | 0     | 15    | 0     | 0     | 0     | 3     | 9     |
| <i>Bucephala clangula</i>           | 1150  | 1035  | 1950  | 716   | 1310  | 530   | 1115  |
| <i>Mergus albellus</i>              | 31    | 20    | 41    | 21    | 22    | 29    | 27    |
| <i>Mergus serrator</i>              | 515   | 730   | 425   | 264   | 895   | 1100  | 655   |
| <i>Mergus merganser</i>             | 219   | 60    | 84    | 80    | 134   | 59    | 106   |
| <i>Haliaeetus albicilla</i>         | 4     | 3     | 4     | 1     | 3     | 4     | 3     |
| <i>Circus aeruginosus</i>           | 6     | 9     | 8     | 4     | 7     | 10    | 7     |
| <i>Circus cyaneus</i>               | 24    | 11    | 30    | 13    | 16    | 14    | 18    |
| <i>Circus pygargus</i>              | 0     | 1     | 0     | 0     | 0     | 0     | 1     |
| <i>Pandion haliaetus</i>            | 2     | 3     | 1     | 1     | 4     | 5     | 3     |
| <i>Falco vespertinus</i>            | 0     | 0     | 1     | 0     | 0     | 0     | 1     |
| <i>Falco columbarius</i>            | 4     | 3     | 2     | 2     | 1     | 3     | 3     |

|                               |       |       |       |       |       |       |      |
|-------------------------------|-------|-------|-------|-------|-------|-------|------|
| <i>Falco rusticolus</i>       | 1     | 0     | 0     | 1     | 0     | 0     | 1    |
| <i>Falco peregrinus</i>       | 3     | 4     | 3     | 2     | 3     | 4     | 3    |
| <i>Fulica atra</i>            | 2200  | 2400  | 2810  | 4200  | 2400  | 4340  | 3058 |
| <i>Haematopus ostralegus</i>  | 12    | 7     | 25    | 9     | 11    | 12    | 13   |
| <i>Recurvirostra avosetta</i> | 948   | 779   | 628   | 466   | 2020  | 1150  | 999  |
| <i>Charadrius morinellus</i>  | 7     | 46    | 25    | 58    | 28    | 73    | 40   |
| <i>Pluvialis apricaria</i>    | 7600  | 8500  | 4200  | 10000 | 5800  | 10600 | 7783 |
| <i>Pluvialis squatarola</i>   | 58    | 85    | 5     | 31    | 38    | 24    | 40   |
| <i>Vanellus vanellus</i>      | 1637  | 1508  | 1225  | 953   | 1378  | 1163  | 1311 |
| <i>Calidris canutus</i>       | 540   | 496   | 682   | 323   | 331   | 121   | 416  |
| <i>Calidris alba</i>          | 12    | 134   | 143   | 89    | 77    | 100   | 93   |
| <i>Calidris ferruginea</i>    | 7     | 25    | 2     | 3     | 2     | 2     | 7    |
| <i>Calidris alpina</i>        | 6300  | 4000  | 2447  | 3600  | 4950  | 5350  | 4441 |
| <i>Philomachus pugnax</i>     | 41    | 16    | 19    | 55    | 119   | 134   | 64   |
| <i>Lymnocyptes minimus</i>    | 0     | 0     | 1     | 0     | 0     | 0     | 1    |
| <i>Gallinago gallinago</i>    | 247   | 29    | 245   | 43    | 169   | 71    | 134  |
| <i>Gallinago media</i>        | 1     | 0     | 0     | 0     | 0     | 0     | 1    |
| <i>Limosa limosa</i>          | 26    | 52    | 37    | 30    | 30    | 15    | 32   |
| <i>Limosa lapponica</i>       | 1490  | 1094  | 3352  | 2066  | 1900  | 2180  | 2014 |
| <i>Numenius phaeopus</i>      | 14    | 9     | 82    | 1     | 35    | 161   | 50   |
| <i>Numenius arquata</i>       | 67    | 44    | 237   | 64    | 155   | 88    | 109  |
| <i>Tringa erythropus</i>      | 43    | 34    | 72    | 25    | 22    | 61    | 43   |
| <i>Tringa totanus</i>         | 912   | 865   | 758   | 363   | 376   | 301   | 596  |
| <i>Tringa nebularia</i>       | 285   | 1178  | 829   | 556   | 626   | 833   | 718  |
| <i>Phalaropus lobatus</i>     | 1     | 1     | 2     | 1     | 2     | 1     | 1    |
| <i>Sterna caspia</i>          | 3     | 1     | 3     | 6     | 7     | 4     | 4    |
| <i>Sterna sandvicensis</i>    | 1     | 0     | 0     | 0     | 0     | 0     | 1    |
| <i>Sterna hirundo</i>         | 7     | 0     | 1     | 25    | 5     | 1     | 8    |
| <i>Sterna paradisaea</i>      | 0     | 0     | 0     | 3     | 0     | 0     | 3    |
| Sum of annual maxima          | 70302 | 76316 | 79247 | 90862 | 65730 | 71095 |      |