**Annexe :**

**Résultats des recensements internationaux d'oiseaux d'eau (hiver) : Zones Humides de Souss-Massa**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Années 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000** | | | | | | | | | | | | | | | | | | |
| *Anser anser* | 1 |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |
| *Tadorna ferruginea* | 26 | 7 | 13 | 12 |  |  | 4 |  | 14 |  | 14 | 5 | 60 |  |  |  | 5 |  |
| *Tadorna tadorna* |  |  |  | 4 |  | 16 | 2 | 1 | 11 | 2 | 1 | 4 |  | 7 | 8 |  | 79 |  |
| *Anas penelope* | 67 | 173 | 200 | 24 | 69 | 60 | 307 | 36 | 58 | 1 |  |  | 45 |  |  |  | 12 | 5 |
| *Anas americana* |  |  | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Anas strepera* |  | 14 |  | 2 |  | 30 | 4 | 12 | 56 |  |  | 2 | 58 |  |  |  | 13 | 37 |
| *Anas crecca* | 94 | 56 | 33 | 625 | 43 | 150 | 266 |  | 292 | 104 | 82 | 20 | 61 | 4 |  | 11 | 120 | 40 |
| *Anas platyrhynchos* | 42 | 23 | 100 | 34 | 22 | 30 | 36 | 130 | 60 | 54 | 25 | 28 | 70 | 9 |  | 9 | 107 |  |
| *Anas acuta* | 181 | 123 | 100 | 111 | 80 | 173 | 156 | 58 | 280 | 48 | 41 | 36 | 33 | 31 |  | 21 | 50 | 310 |
| *Anas querquedula Anas discors* |  | 1 |  |  |  |  | 6 |  |  |  |  |  | 1 |  |  |  |  |  |
| *Anas clypeata* | 302 | 179 | 300 | 51 | 21 | 220 | 252 | 225 | 372 | 6 | 82 | 12 | 352 | 6 |  | 10 | 371 | 6 |
| *Marmaronetta angustirostris* | 89 | 26 | 21 | 62 | 165 | 350 | 168 |  | 350 | 156 | 25 |  | 10 | 7 |  | 5 | 50 | 96 |
| *Netta rufina* | 1 | 5 | 4 | 4 | 1 | 2 | 3 |  |  |  |  |  |  |  |  |  |  |  |
| *Aythya ferina* 1524 1692 1800 874 440 334 1423 158 260 232 72 62 291 88 660 3330 | | | | | | | | | | | | | | | | | | |
| *Aythya nyroca* | 16 | 2 |  |  |  |  |  | 2 | 14 |  |  |  |  |  |  |  |  |  |
| *Aythya fuligula* | 117 | 63 | 430 | 10 | 69 | 100 | 32 | 27 | 220 | 61 | 46 | 31 | 149 | 11 |  |  | 4 | 54 |
| *Anatidae spp.* |  |  |  |  | 6 |  | 6 |  |  |  | 7 |  |  |  |  |  |  |  |
| *Tachybaptus ruficollis* | 290 | 173 | 83 | 32 | 79 | 80 | 14 | 43 | 110 | 5 | 9 | 13 | 44 | 2 | 10 | 8 | 28 | 62 |
| *Podiceps cristatus* | 3 | 5 | 1 |  | 2 | 5 | 1 | 1 | 28 | 5 | 2 | 1 | 1 |  |  |  |  | 2 |
| *Podiceps nigricollis* |  |  |  | 2 |  |  |  | 2 |  | 4 | 1 | 4 | 25 |  |  |  |  | 14 |
| *Morus bassana* |  |  | 1 |  |  |  |  |  |  |  |  |  | 5 |  |  |  |  |  |
| *Phalacrocorax carbo sinensis* | 111 | 99 | 83 | 43 | 48 | 73 | 57 | 40 | 68 | 34 | 63 | 44 | 96 | 53 | 28 | 23 | 43 | 34 |
| *Phalacrocorax aristotelis* |  |  |  |  |  |  |  |  | 2 |  | 1 | 1 | 1 | 1 |  |  |  |  |
| *Ardea cinerea* | 58 | 69 | 29 | 41 | 35 | 134 | 102 | 90 | 73 | 40 | 68 | 81 | 83 | 51 | 34 | 103 | 60 | 44 |
| *Ardea purpurea* |  |  |  |  |  | 1 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| *Egretta garzetta* | 25 | 8 | 7 | 14 | 19 | 35 | 36 | 11 | 60 | 10 | 21 | 32 | 46 | 21 | 6 | 6 |  | 31 |
| *Ardea ibis* |  |  |  | 1 |  | 5 |  |  | 40 |  |  |  | 100 |  |  |  |  |  |
| *Ardeola ralloides Nycticorax nycticorax* |  |  |  |  |  |  |  | 17 | 8 |  |  | 1 | 1 |  |  |  |  |  |
| *Botaurus stellaris* |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| *Ciconia ciconia* | 4 | 1 | 1 | 2 | 4 | 12 | 7 |  | 41 | 10 | 89 | 28 | 11 | 9 | 22 |  | 100 | 4 |
| *Geronticus eremita* |  |  |  |  |  |  |  |  |  |  |  |  | 77 |  |  |  |  | 9 |
| *Plegadis falcinellus* |  |  | 1 |  |  |  | 7 |  | 12 |  |  | 13 | 63 | 60 | 2 |  | 35 | 42 |
| *Platalea leucorodia* | 9 | 3 | 14 | 5 | 2 | 9 | 10 | 7 | 12 | 11 | 8 | 16 | 11 | 9 | 15 | 26 | 13 | 10 |
| *Phoenicopterus ruber* | 153 | 5 | 228 | 37 | 220 | 23 | 1 | 5 | 700 | 226 | 543 | 95 | 184 | 52 |  | 56 | 1094 | 570 |
| *Phoenicopterus minor* | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Grus grus* | 47 | 108 | 78 | 63 | 56 | 35 | 40 |  | 80 | 39 | 7 | 54 | 12 | 11 |  | 24 | 3 | 40 |

*Rallus aquaticus* 3

*Gallinula chloropus* 516 145 82 6 17 100 9 32 54 19 45 50 2 4 6 40

*Fulica atra* 7441 3909 5006 3720 4484 10022 1430 4860 4562 1314 236 575 581 23 9 38 4640 5040

*Fulica spp.* 35

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Haematopus ostralegus* | 11 | 14 | 20 | 21 | 16 | 22 | 12 | 62 | 224 | 4 | 55 | 74 | 53 | 22 | 88 | 20 | 7 | 190 |
| *Himantopus himantopus* |  | 1 |  |  |  | 2 |  |  | 14 | 83 | 68 | 174 | 251 | 69 | 12 | 146 | 181 | 296 |
| *Recurvirostra avosetta* |  |  |  |  |  |  | 2 |  | 30 | 1 | 1 |  | 2 |  |  |  |  |  |
| *Burhinus oedicnemus* |  |  |  |  |  |  |  |  |  |  |  |  | 14 |  |  |  |  |  |
| *Vanellus vanellus Vanellus leucurus Pluvialis apricaria* |  | 1 | 5 |  | 15 |  | 7 | 2 |  | 42 | 12 | 1 | 11 | 11 |  |  | 100 | 60 |
| *Pluvialis squatarola* | 67 | 10 | 2 | 22 | 12 | 4 | 24 | 15 | 324 | 57 | 495 | 185 | 155 | 66 | 107 | 7 |  | 220 |
| *Charadrius hiaticula* | 94 | 50 | 3 | 7 | 25 |  | 11 | 6 | 300 | 45 | 385 | 70 | 274 | 2 |  | 6 |  | 150 |
| *Charadrius dubius* | 133 |  |  |  |  | 1 | 92 |  | 400 | 4 | 10 | 52 | 177 |  |  | 4 |  | 12 |
| *Charadrius alexandrinus* | 74 | 50 | 9 | 26 | 20 | 8 | 17 | 24 | 310 |  | 333 | 79 | 187 | 2 |  | 2 | 14 | 75 |
| *Limosa limosa* | 7 |  | 1 |  | 46 |  | 56 | 12 | 30 | 12 | 118 | 30 | 148 | 7 |  | 60 | 330 | 10 |
| *Limosa lapponica* | 11 |  |  | 73 |  | 2 | 64 |  | 20 | 170 | 14 | 11 | 33 | 8 | 37 |  |  | 350 |
| *Numenius phaeopus* |  |  |  |  |  |  |  |  | 2 |  |  | 2 | 8 |  | 13 |  |  |  |
| *Numenius arquata* | 13 |  |  | 2 |  |  | 20 |  |  | 11 | 35 | 2 | 33 | 1 | 7 | 4 | 44 | 6 |
| *Tringa erythropus* |  |  |  |  |  |  |  |  | 15 |  | 10 | 3 | 1 |  |  | 1 | 6 |  |
| *Tringa totanus* | 38 | 6 | 5 | 6 | 20 | 6 | 10 | 57 | 146 | 38 | 372 | 172 | 165 | 134 | 19 | 71 | 156 | 174 |
| *Tringa nebularia* | 8 |  | 1 | 4 | 9 | 10 | 5 | 10 |  | 1 | 31 | 7 | 31 | 8 | 9 | 40 | 15 | 12 |
| *Tringa ochropus* |  | 2 |  |  |  | 2 |  | 1 |  |  | 2 |  | 6 |  | 6 |  |  | 4 |
| *Tringa glareola* | 1 |  |  |  | 2 |  |  |  |  |  | 6 |  | 2 |  |  |  | 1 | 2 |
| *Tringa hypoleucos* | 7 |  | 1 |  | 20 | 10 | 2 |  |  | 70 | 61 | 2 | 29 | 3 | 1 | 2 | 1 | 2 |
| *Phalaropus fulicaria* |  |  |  |  |  |  |  |  | 1 |  |  |  |  | 1 |  |  |  |  |
| *Gallinago gallinago* | 3 | 1 | 1 |  |  | 8 | 3 | 2 | 6 |  | 5 | 13 | 8 |  |  |  | 4 |  |
| *Calidris canutus* | 13 |  | 2 | 40 |  |  | 75 |  |  |  |  |  |  |  |  |  |  | 6 |
| *Calidris alba* | 64 | 15 | 10 | 60 | 15 | 4 | 90 |  | 22 | 75 | 447 | 38 | 125 | 134 |  |  | 48 | 270 |
| *Calidris minuta* |  | 30 |  |  |  | 20 | 10 |  |  |  | 174 | 262 | 42 |  | 6 | 5 |  | 200 |
| *Calidris alpina* | 182 | 20 |  | 90 |  |  | 130 |  | 124 |  | 233 | 191 | 99 | 45 | 72 |  | 20 | 1000 |
| *Calidris ferruginea* |  |  |  |  |  |  |  |  |  |  | 1 |  | 1 |  |  |  | 2 |  |
| *Calidris spp.* |  |  |  |  |  |  |  |  |  | 91 | 3 |  |  |  |  |  |  |  |
| *Philomachus pugnax* |  |  |  |  |  |  |  |  |  |  | 18 |  | 20 | 3 | 7 |  | 4 | 47 |
| *Charadrii spp.* |  |  |  |  |  |  |  |  |  |  | 7 |  | 500 |  |  |  |  |  |
| *Larus audouinii* | 4 |  |  |  |  | 3 | 8 | 6 | 30 |  | 37 | 145 | 123 | 279 |  | 23 | 425 | 292 |
| *Larus delawarensis Larus cachinnans* | 600 |  | 1 |  |  | 1500 | 1 |  | 1050 |  |  | 30 | 29 | 14 |  | 640 |  | 32 |
| *Larus fuscus* | 200 |  | 80 1695 1500 | | | 1500 | 161 | 814 | 900 | 30 1460 | | 8641 | 6337 2000 | |  | 160 | 1240 | 2504 |
| *Larus melanocephalus* | 1 |  | 2 | | |  | 4 |  |  |  | | 14 | 8 | |  |  | 20 |  |
| *Larus ridibundus* | 145 |  | 2 | 63 | 15 | 700 | 60 | 200 | 412 | 250 | 448 | 455 | 810 | 39 |  | 51 | 763 | 1050 |
| *Larus genei Larus minutus* | 2 |  |  |  | 5 | 1 | 80 |  |  |  | 27 |  |  |  |  |  | 6 |  |
| *Rissa tridactyla Xema sabini* |  |  |  |  |  | 2 |  | 60 |  |  |  |  |  |  |  |  |  |  |
| *Larus spp.* |  |  |  |  |  |  |  | 215 |  |  | 514 |  |  |  |  |  |  | 418 |
| *Chlidonias spp. Sterna nilotica* |  |  |  |  |  |  |  | 60 | 20 |  |  |  |  |  |  |  |  |  |
| *Sterna caspia* | 1 |  |  |  |  |  |  |  | 216 | 1 |  | 2 |  |  |  |  |  |  |
| *Sterna hirundo* |  |  |  |  |  |  |  | 80 |  |  |  |  |  |  |  |  |  |  |
| *Sterna albifrons Sterna maxima* |  |  |  |  |  |  |  | 6 |  |  |  |  | 1 |  |  | 1 |  | 2 |
| *Sterna sandvicensis Sterna spp.* | 59 |  | 1 | 3 | 2 | 14 | 8 | 300 | 12 |  | 11 | 150 | 97 | 128 |  | 30 | 93 | 24 |
| *Laridae spp.* |  |  |  |  |  |  | 1 | 160 |  |  |  |  |  |  |  |  |  |  |
| *Pandion haliaetus* | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 2 | 3 | 3 | 2 | 3 | 5 | 2 |  | 3 | 3 | 2 |
| *Circus aeruginosus* | 3 | 2 | 1 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 6 |  |  | 1 |  | 4 |
| *Asio flammeus* | 1 |  |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |  |  |
| *Alcedo atthis* |  | 2 |  |  |  | 1 | 2 |  | 1 | 1 | 1 | 4 | 5 | 1 | 4 | 1 | 2 |  |
| *Cisticola juncidis* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 5 |  |

Effectifs totaux 12862 7095 8767 7895 7608 15823 5375 7854 12454 3353 6860 12016 12313 3442 524 1622 10983 17234