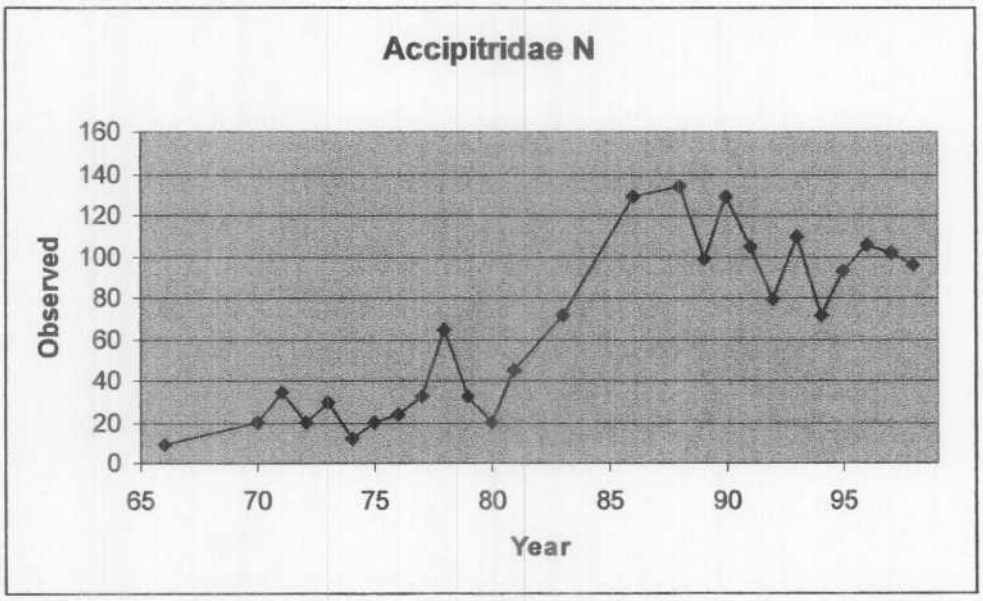
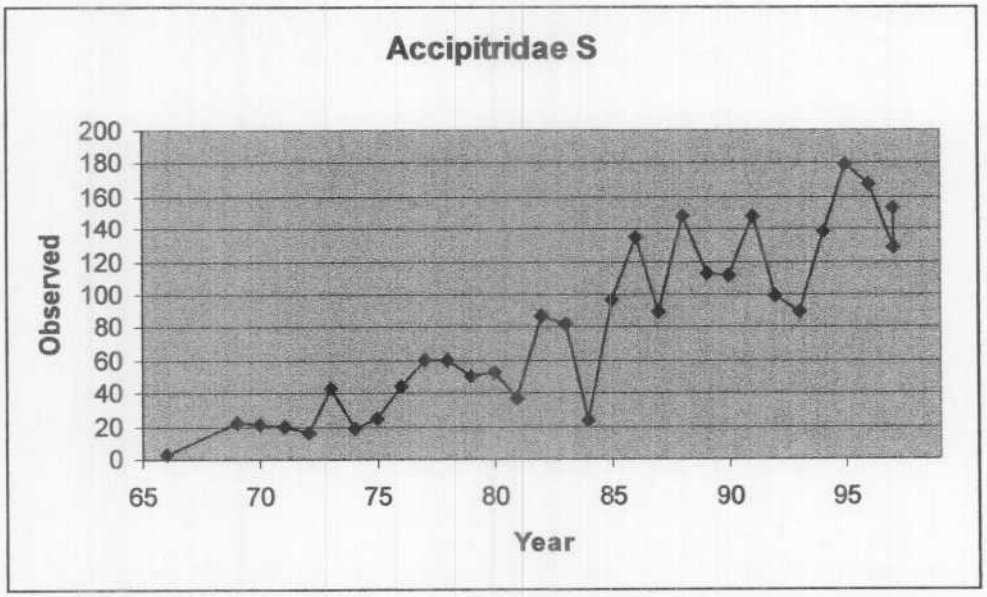
APPENDIX:
FAMILY GRAPHS

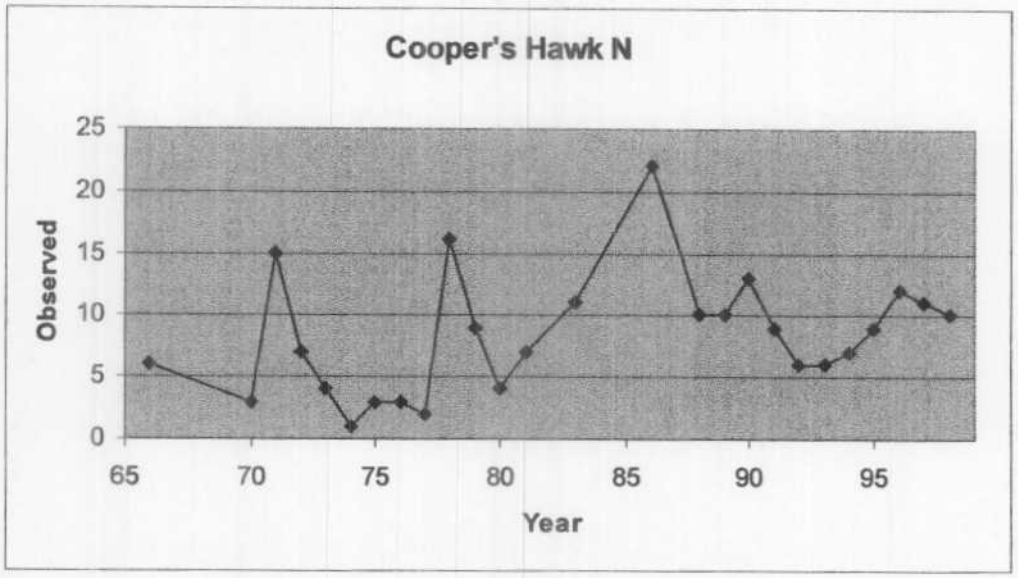
ACCIPITRIDAE



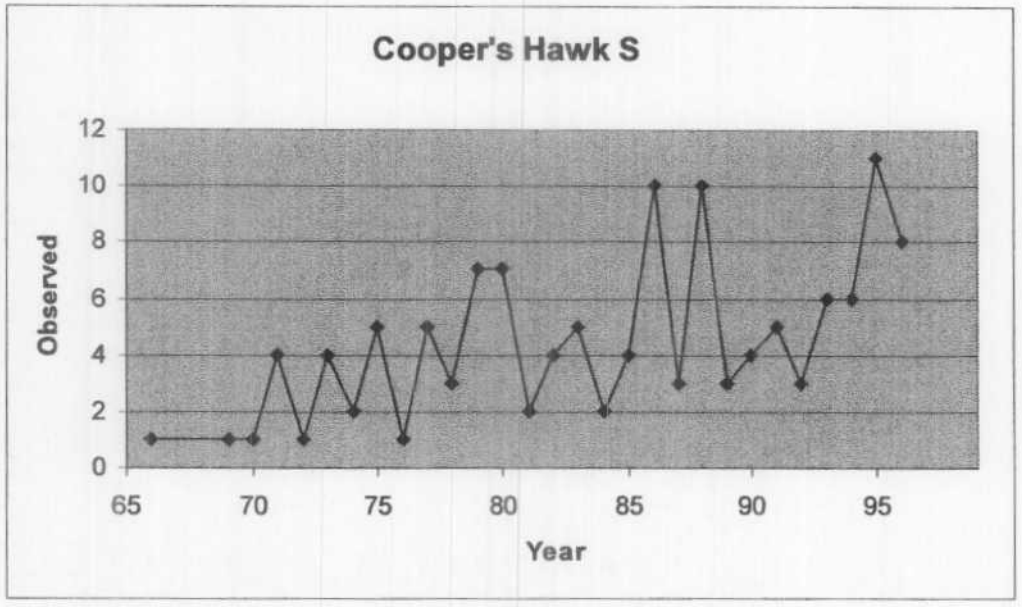
Mean 64 Standard Deviation 40



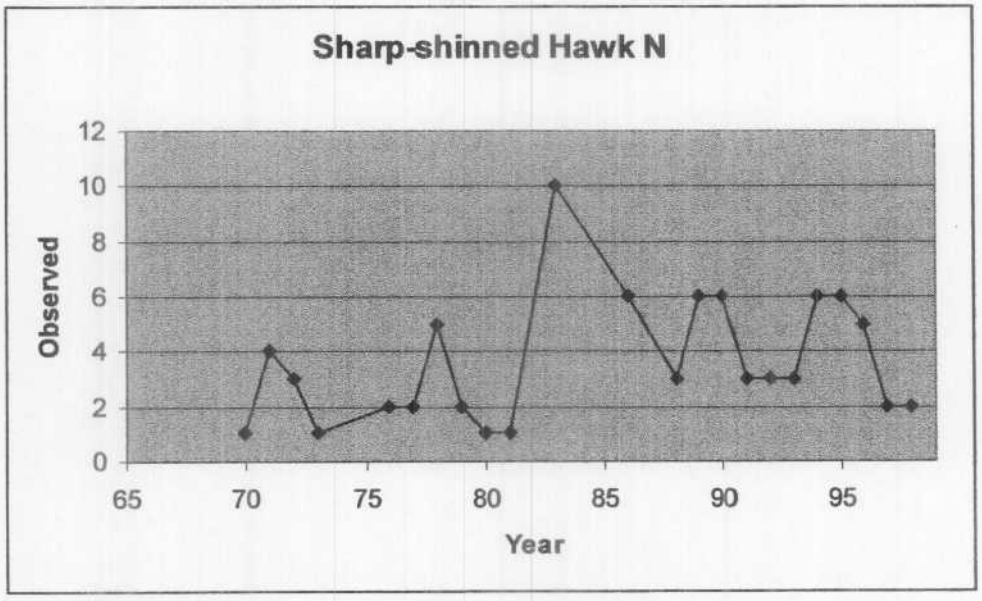
Mean 79 Standard Deviation 50



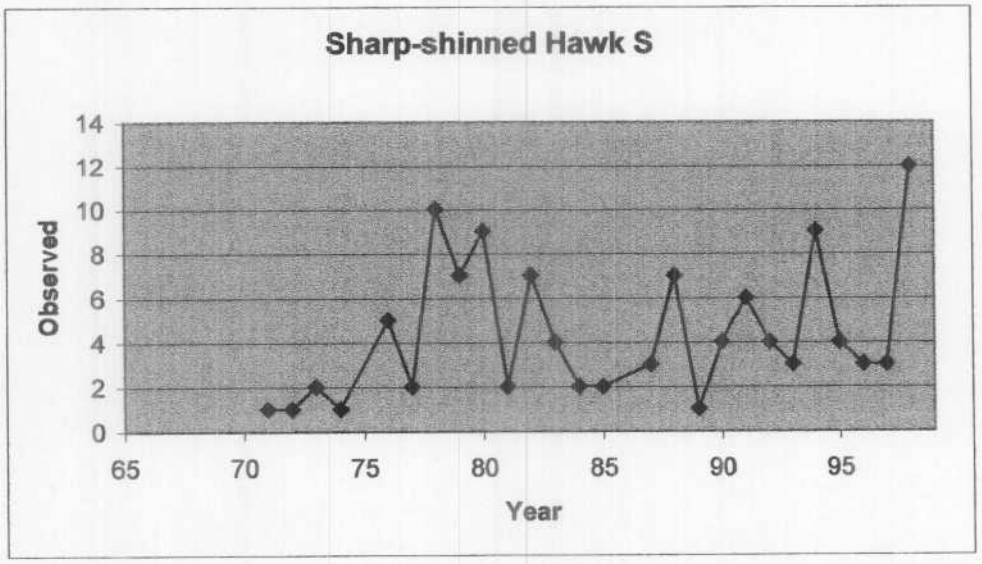
Mean 8 Standard Deviation 4



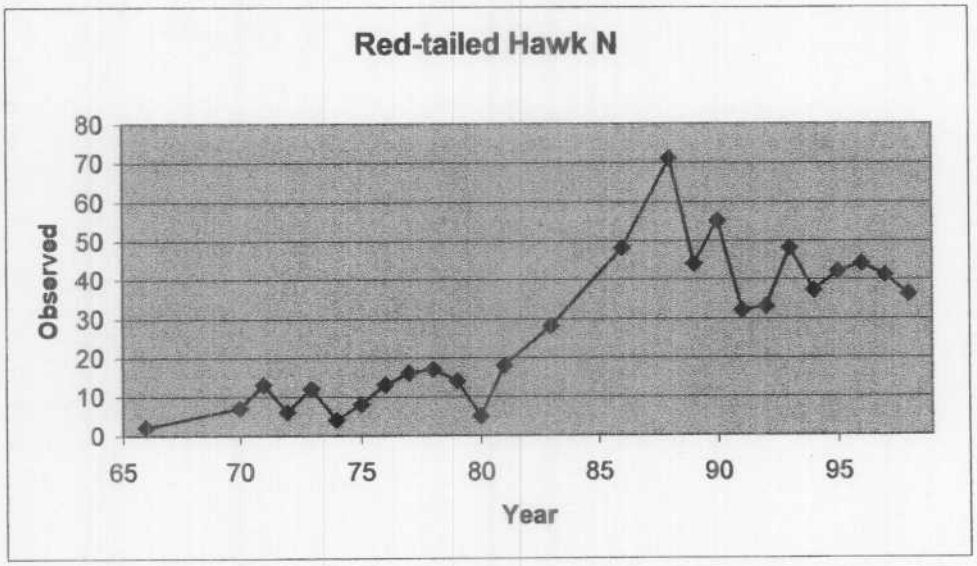
Mean 4 Standard Deviation 3



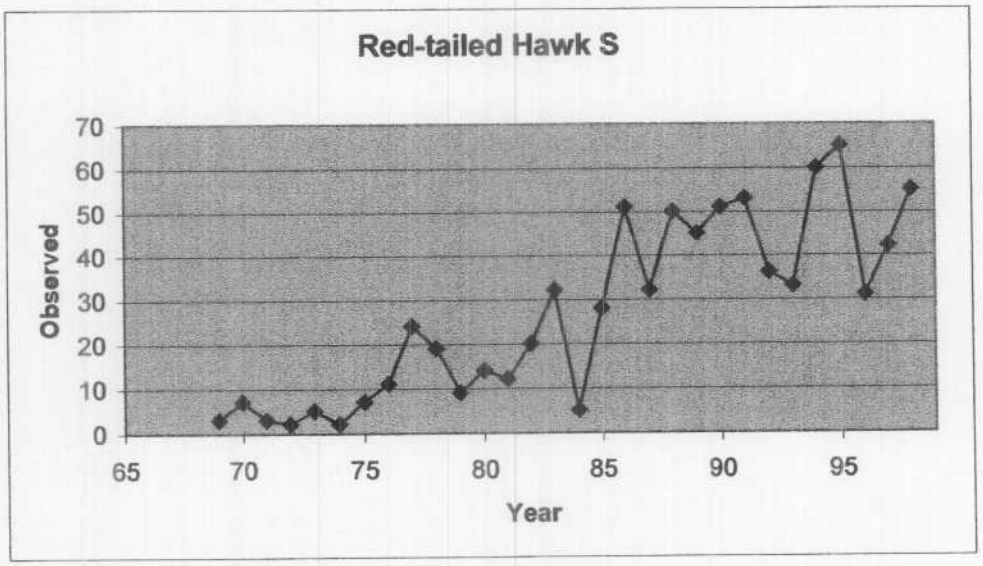
Average 3 Standard Deviation 2



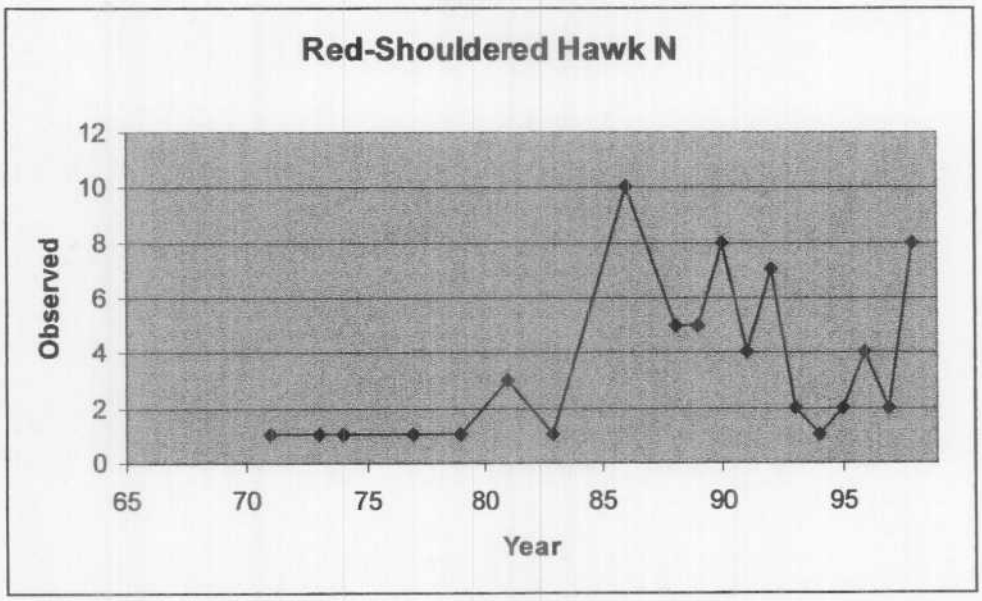
Average 4 Standard Deviation 3



Mean 26 Standard Deviation 18

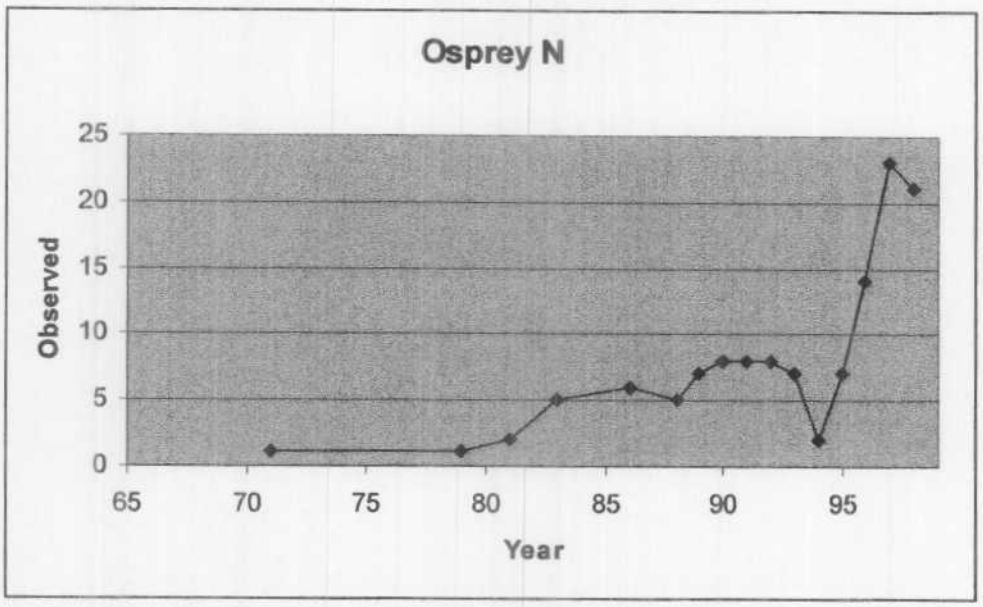


Average 26 Standard Deviation 19

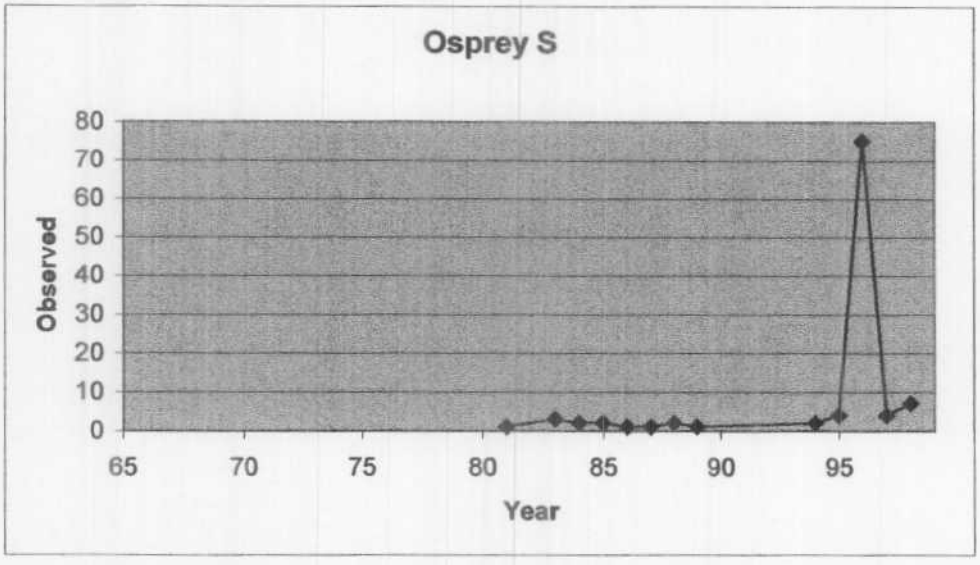


Mean 3

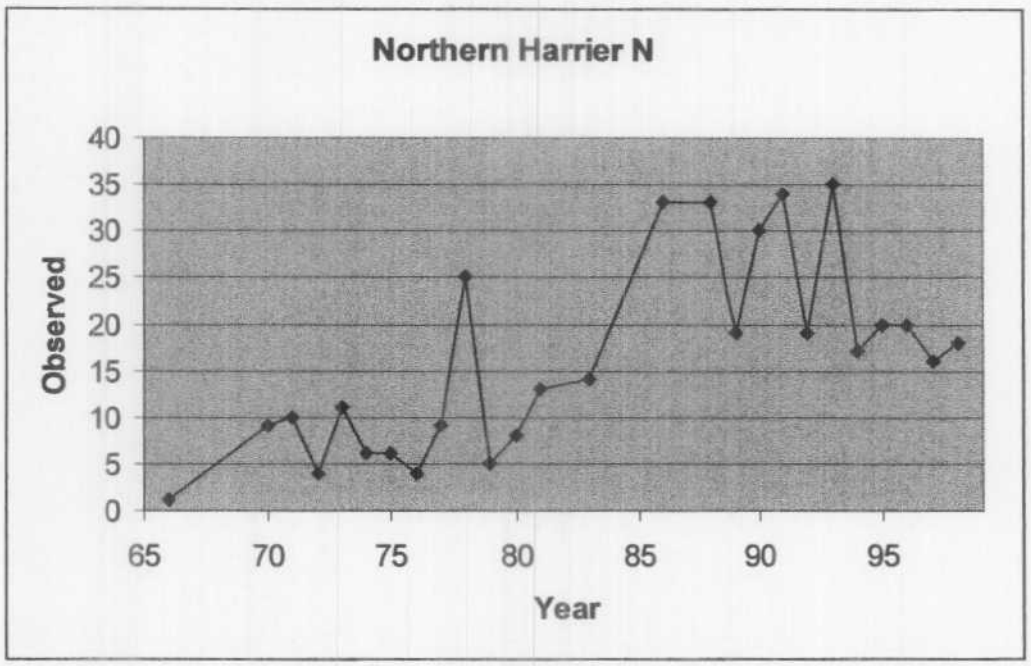
Standard Deviation 2



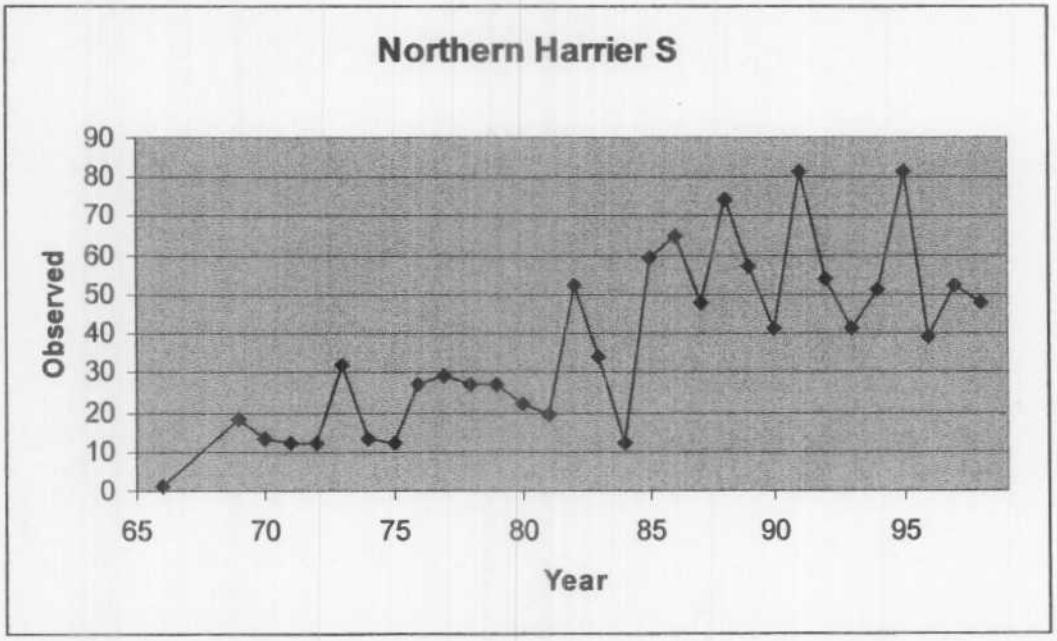
Mean 7 Standard Deviation 6



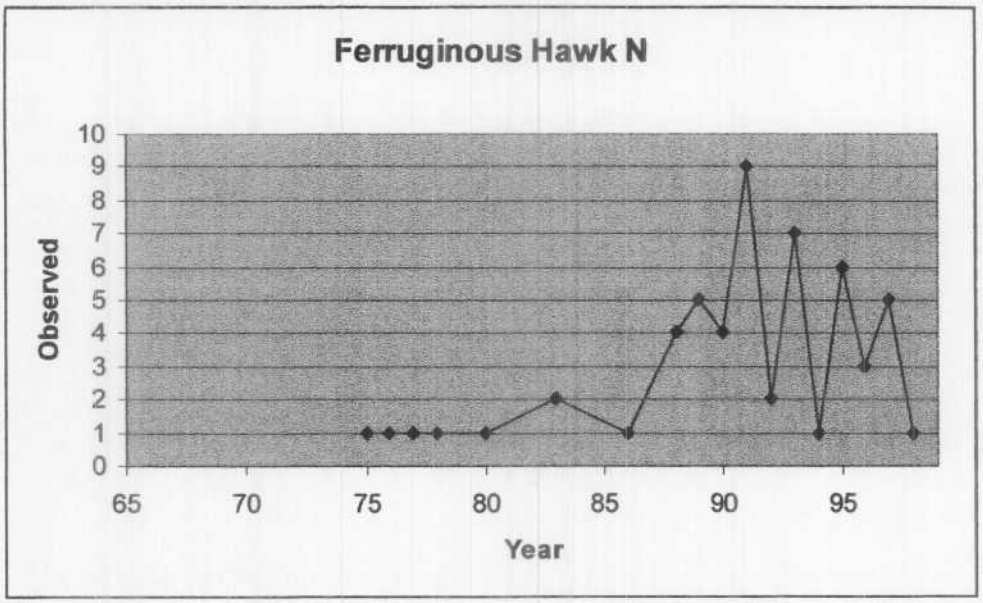
Mean 19 Standard Deviation 8



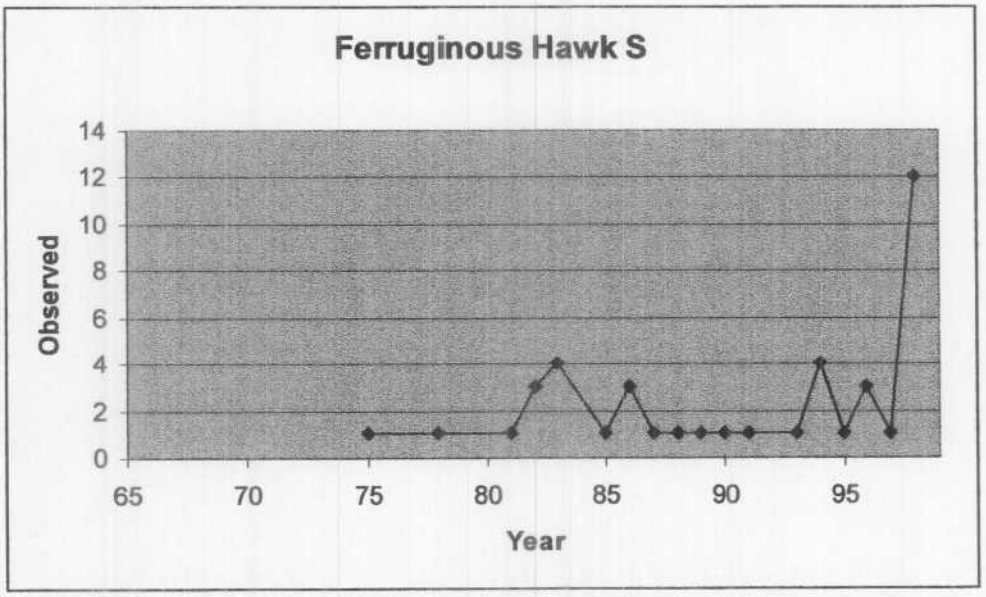
Mean 16 Standard Deviation 10



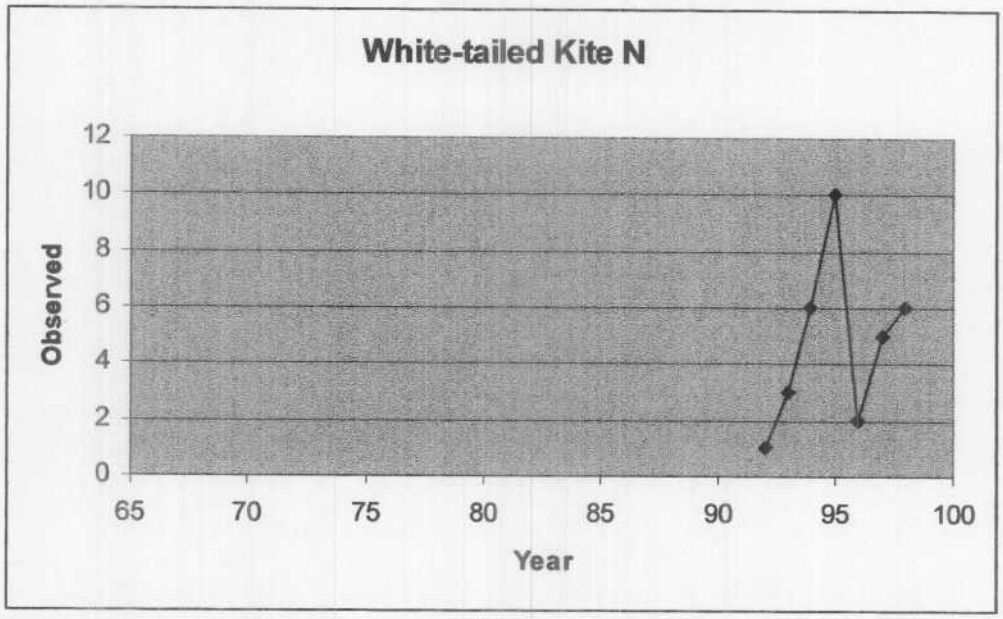
Average 37 Standard Deviation 21



Mean 3 Standard Deviation 2



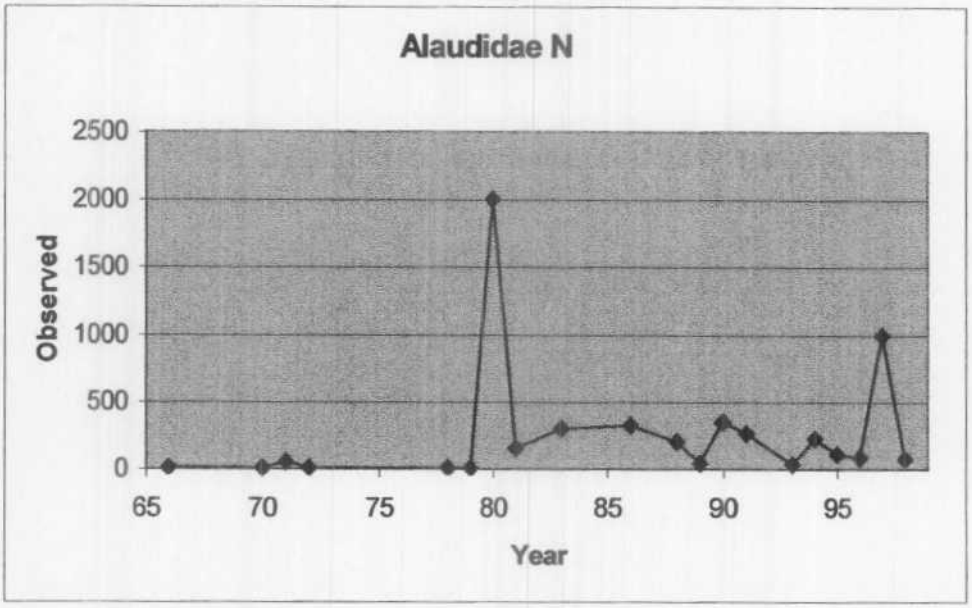
Mean 2 Standard Deviation 2



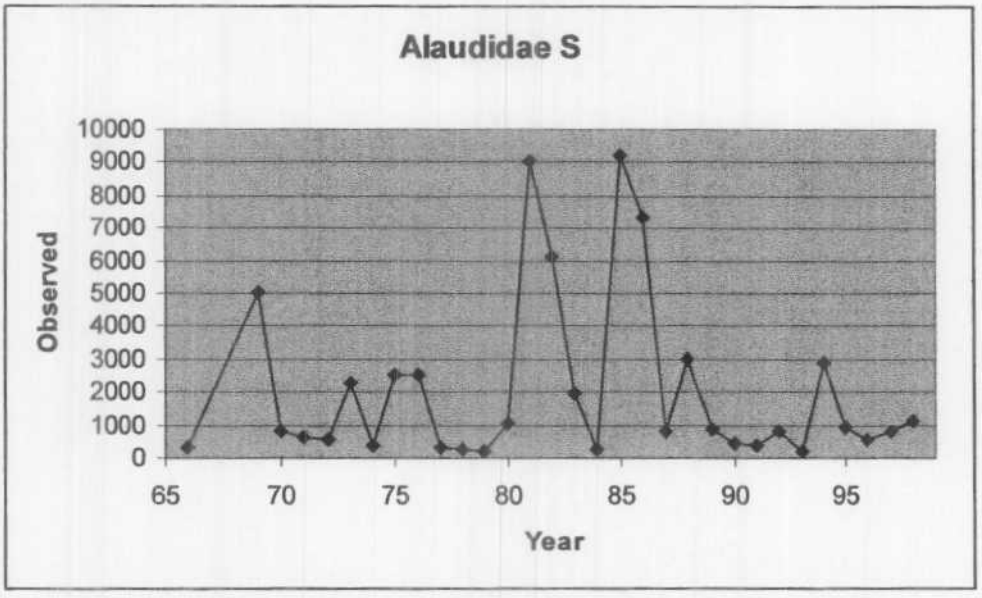
Mean 4

Standard Deviation 2

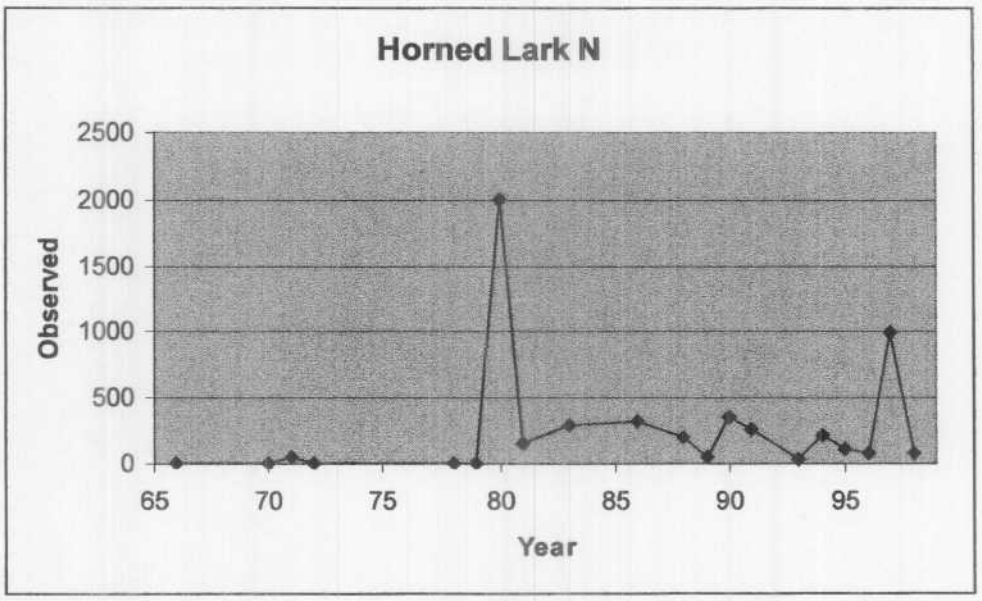
ALAUDIDAE



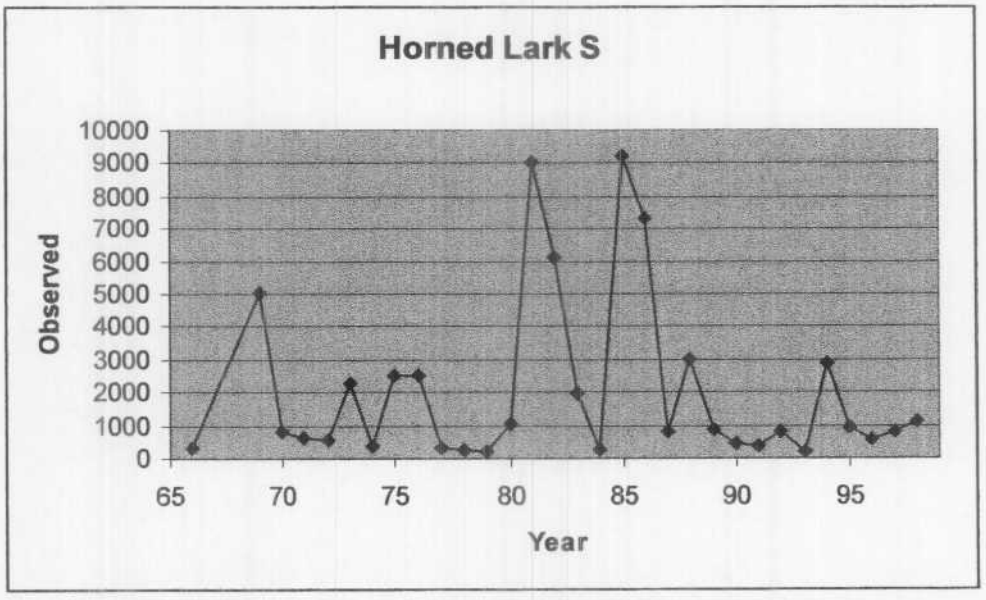
Mean 258 Observed 456



Mean 2037 Standard Deviation 2537

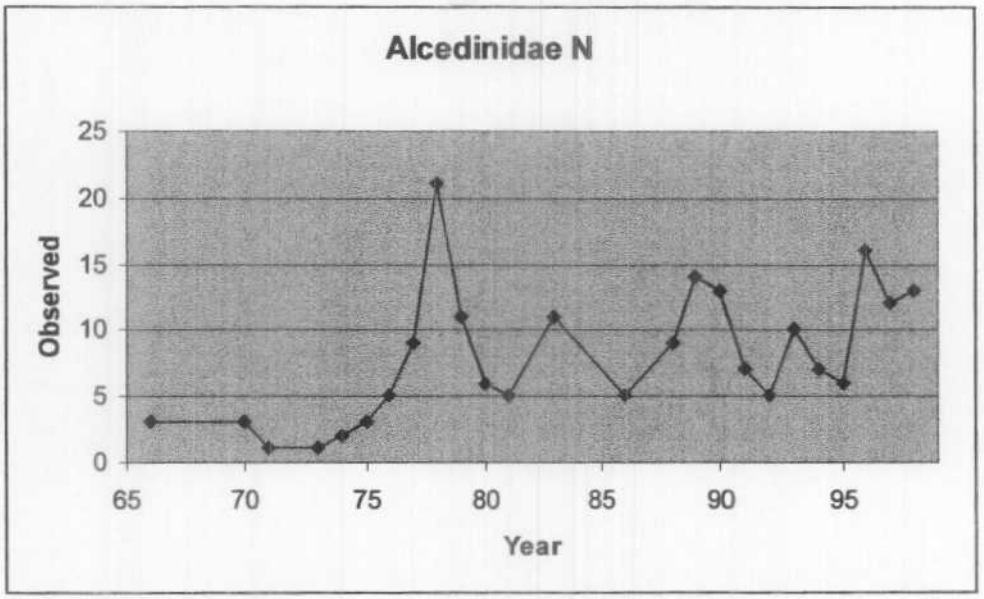


Mean 258 Standard Deviation 458

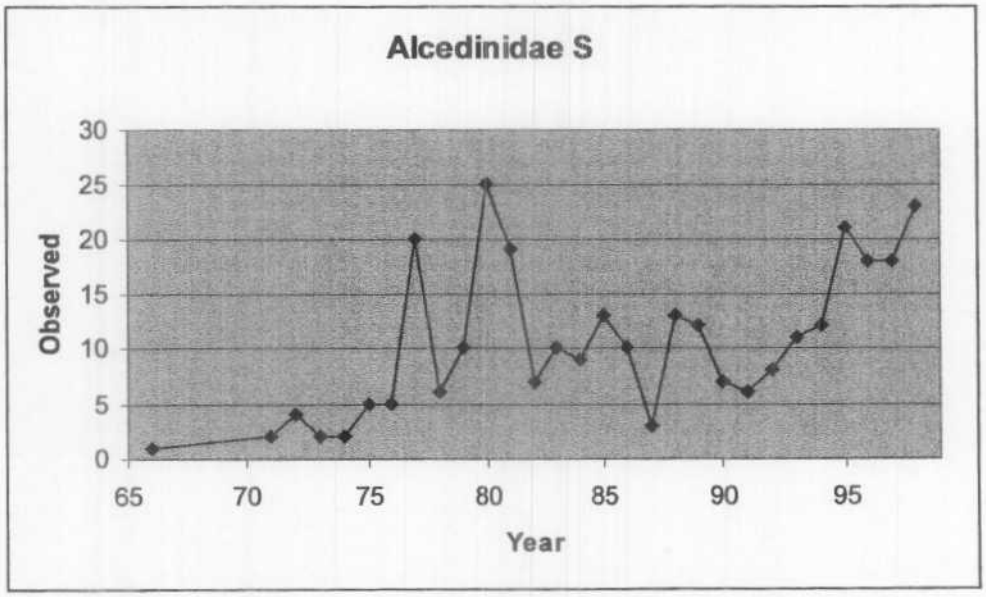


Mean 2037 Standard Deviation 2537

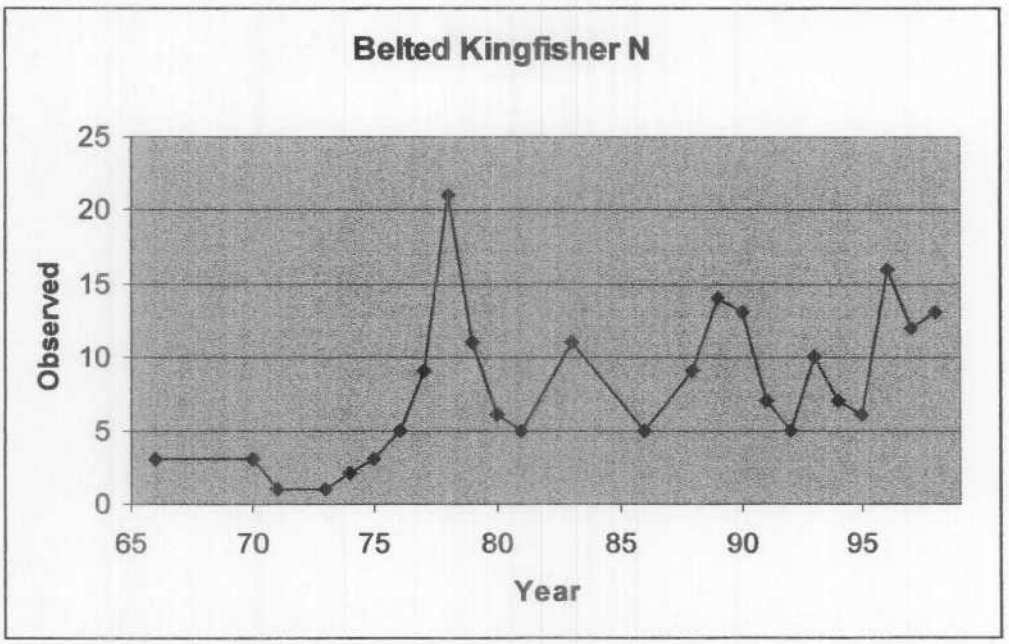
ALCEDINIDAE



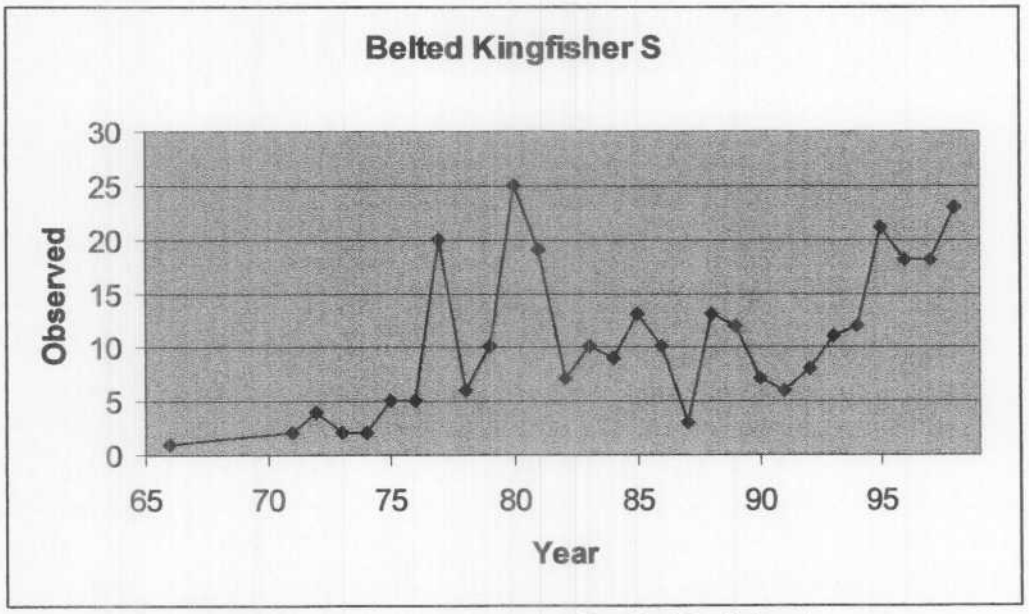
Mean 7 Standard Deviation 4



Mean 10 Standard Deviation 6

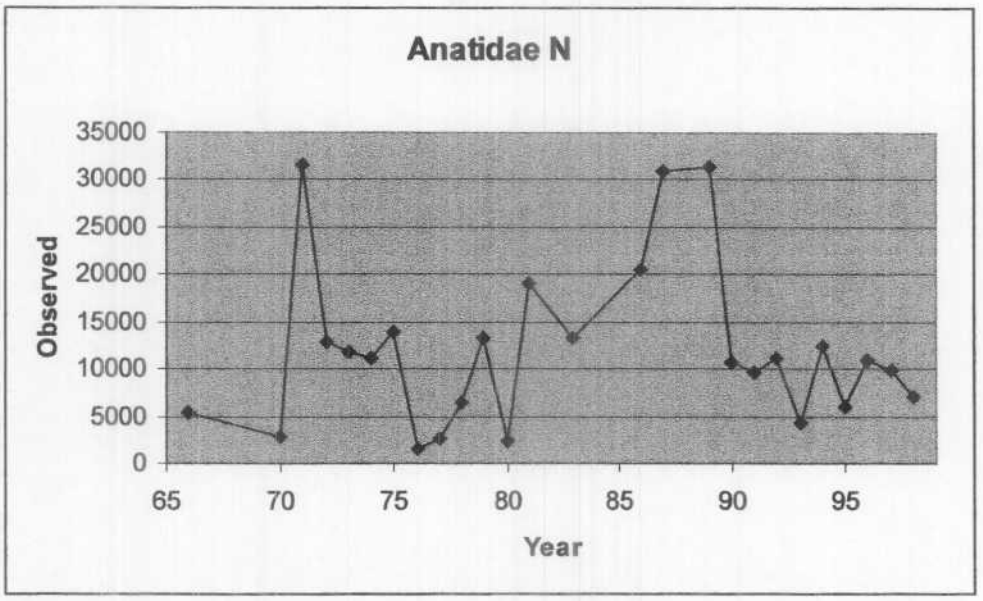


Mean 7 Standard Deviation 4

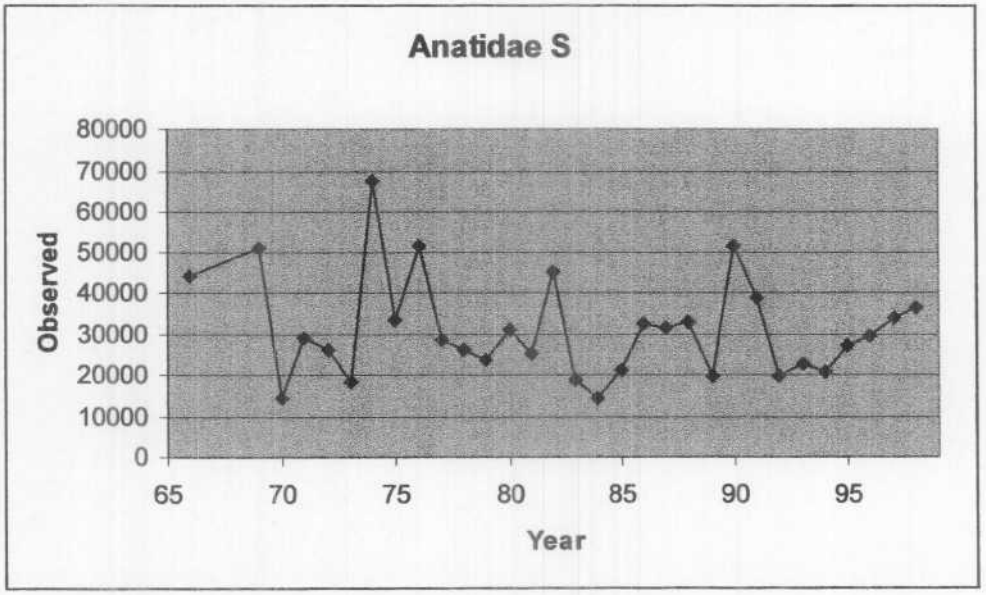


Mean 10 Standard Deviation 6

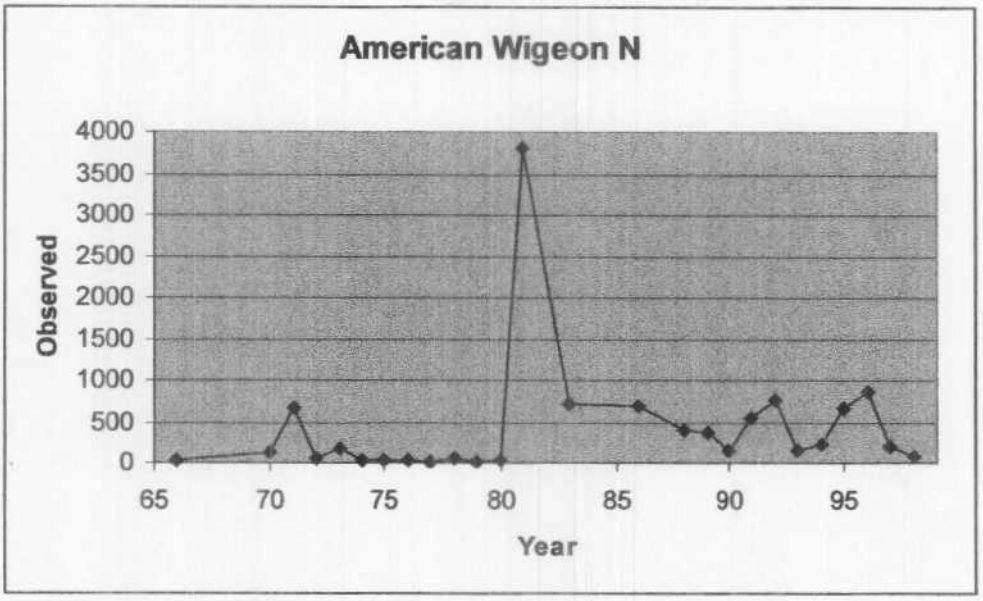
ANATIDAE



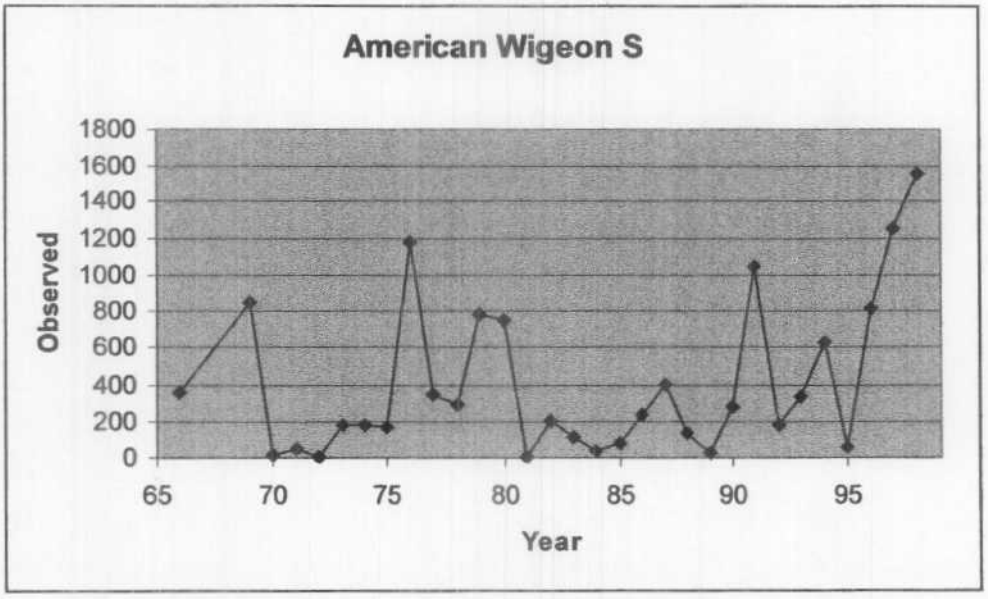
Mean 12008 Standard Deviation 8404



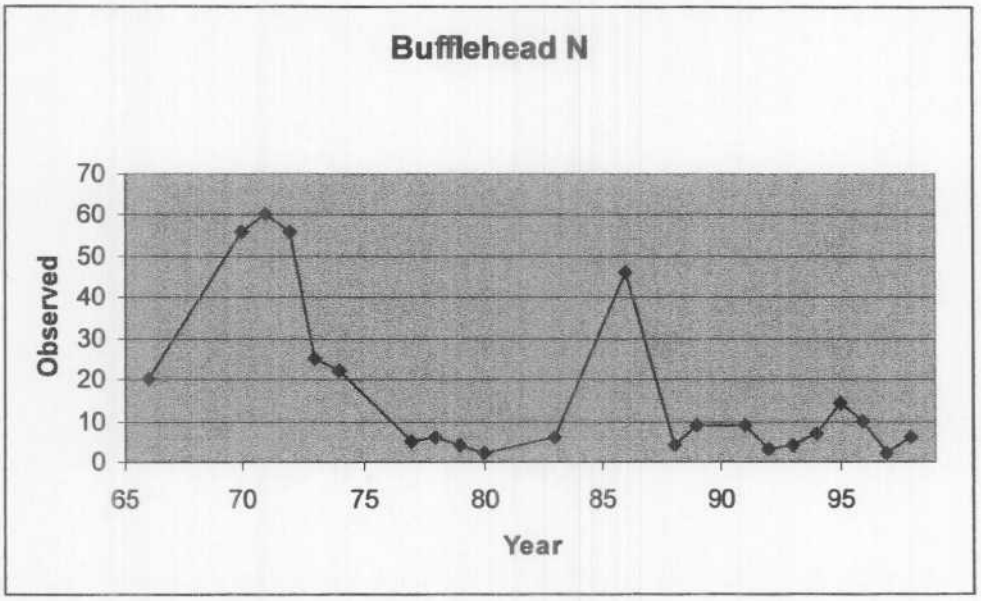
Mean 30928 Standard Deviation 12200



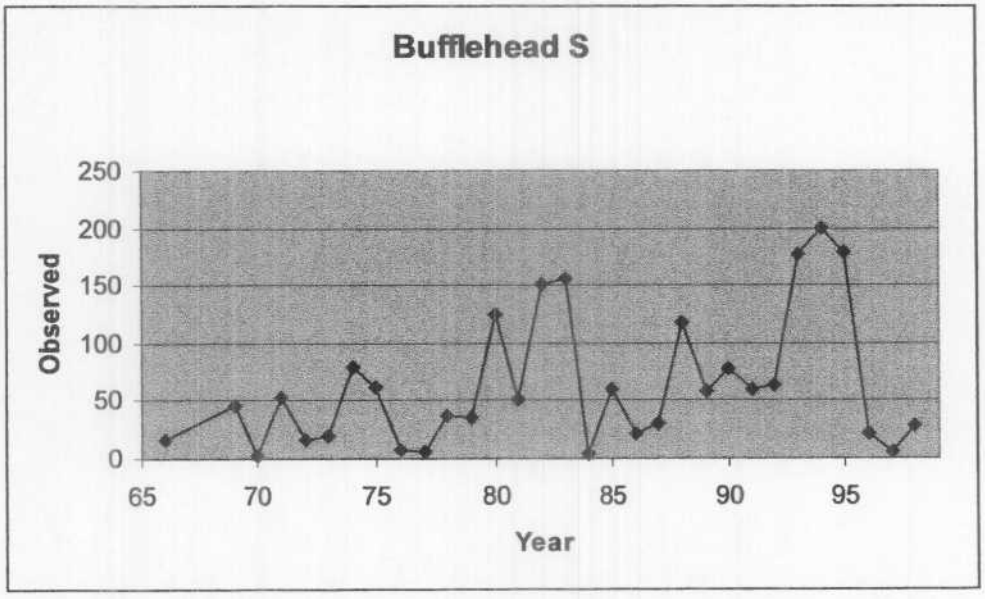
Mean 411 Standard Deviation 731



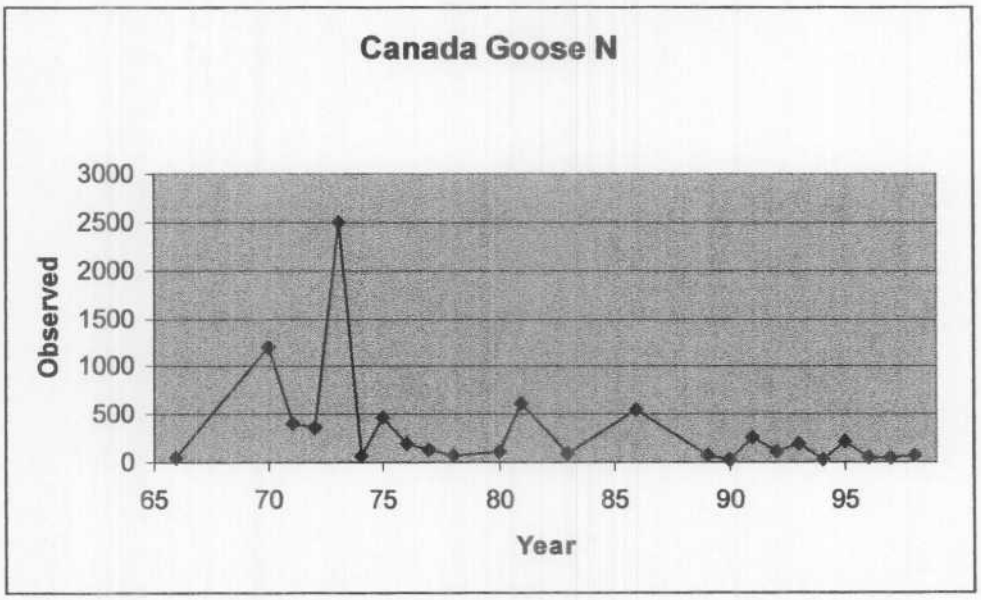
Mean 401 Standard Deviation 414



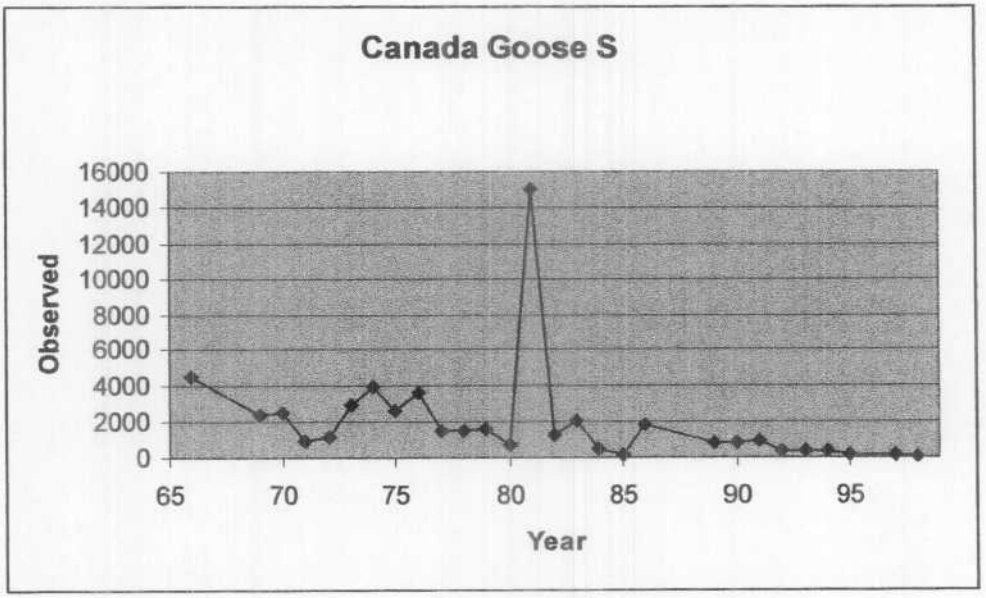
Mean 17 Standard Deviation 18



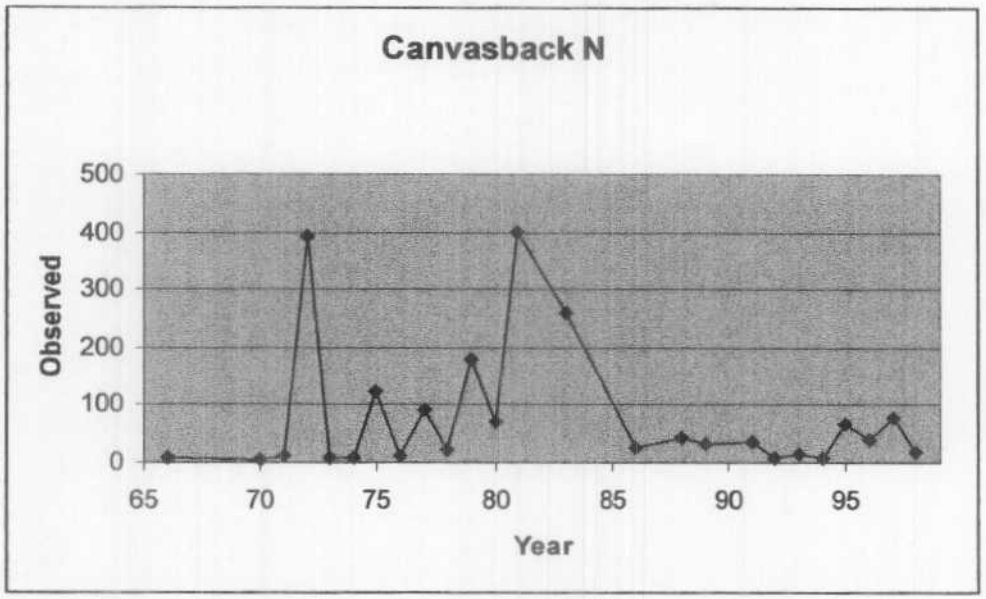
Mean 62 Standard Deviation 56



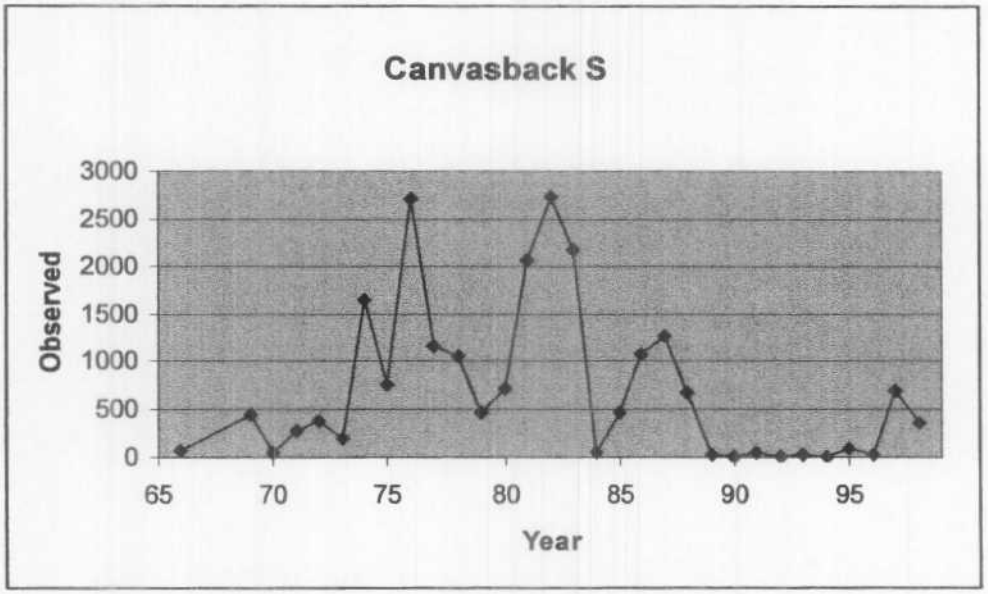
Mean 319 Standard Deviation 525



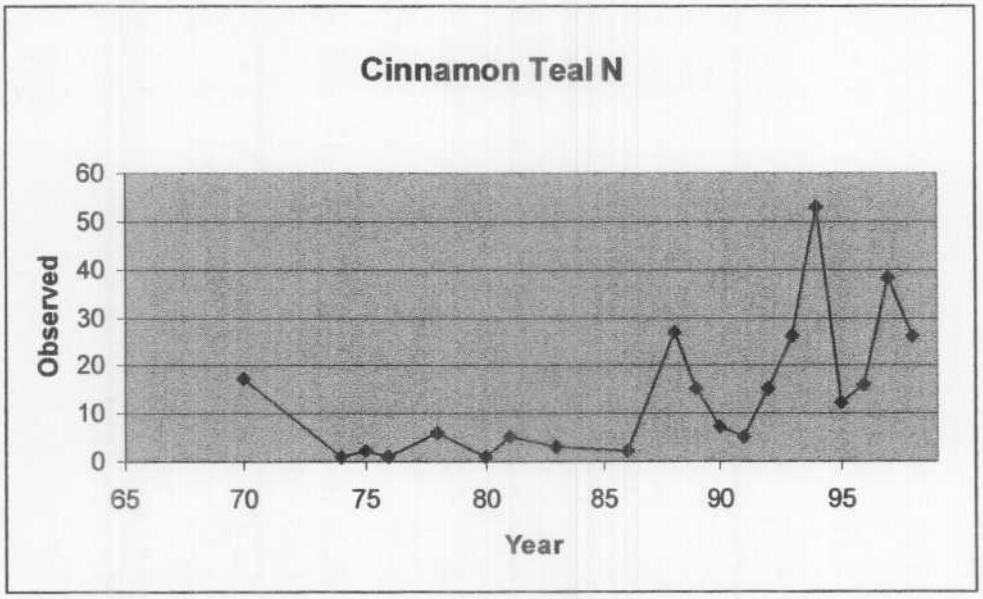
Mean 1927 Standard Deviation 2787



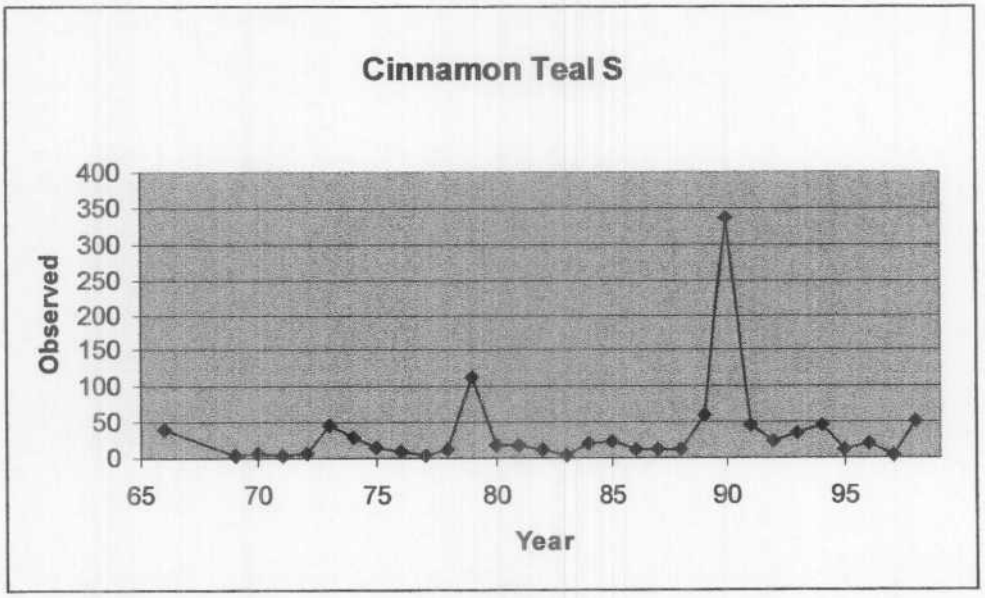
Mean 77 Standard Deviation 110



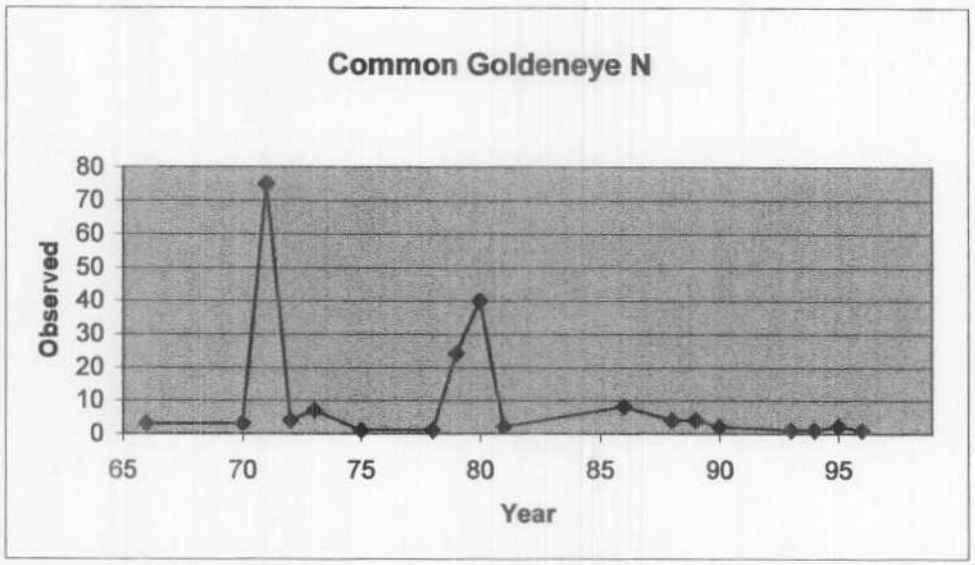
Mean 695 Standard Deviation 794



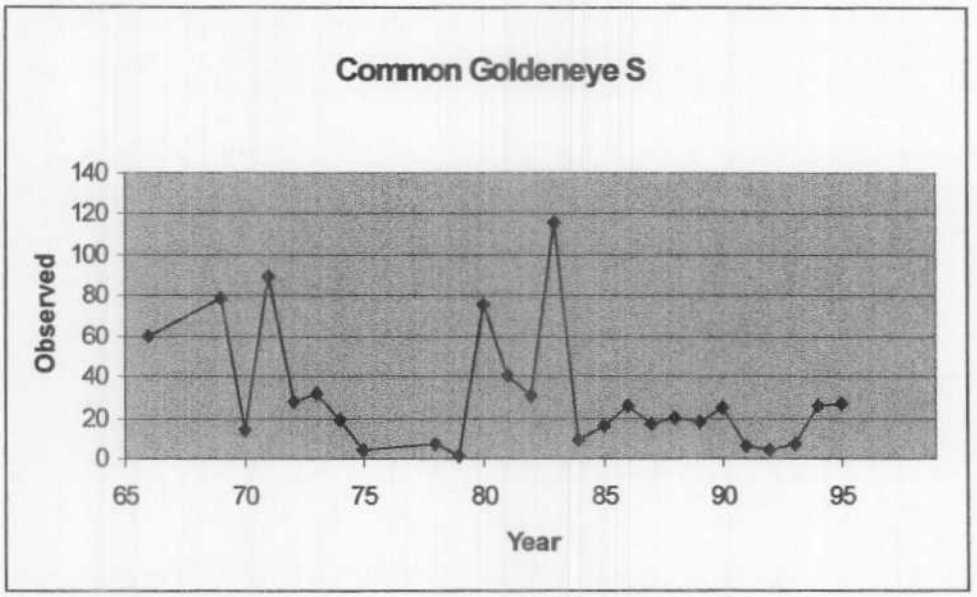
Mean 13 Standard Deviation 13



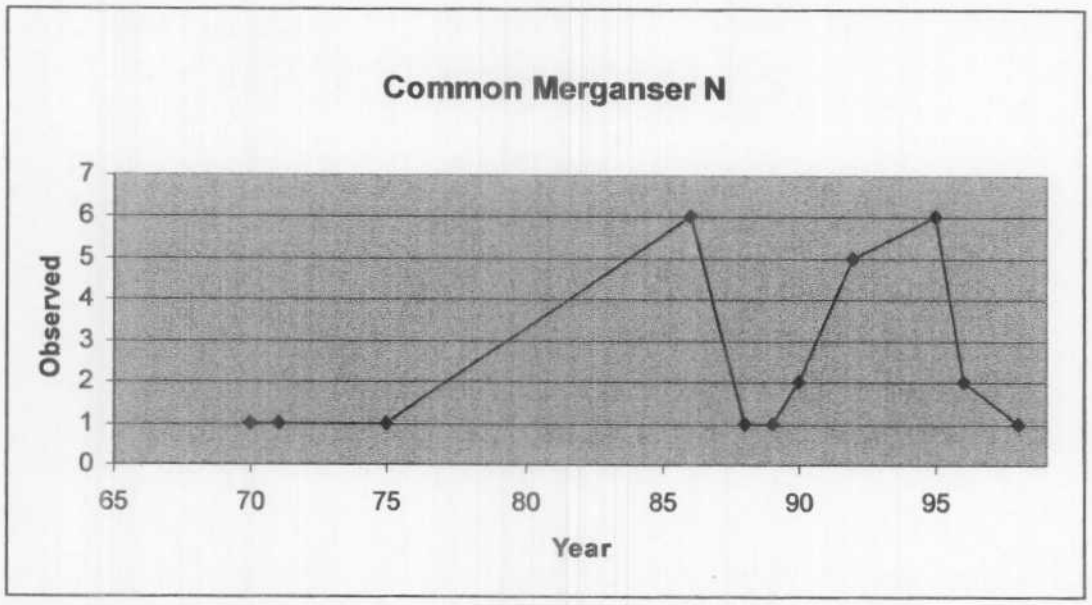
Mean 32 Standard Deviation 59



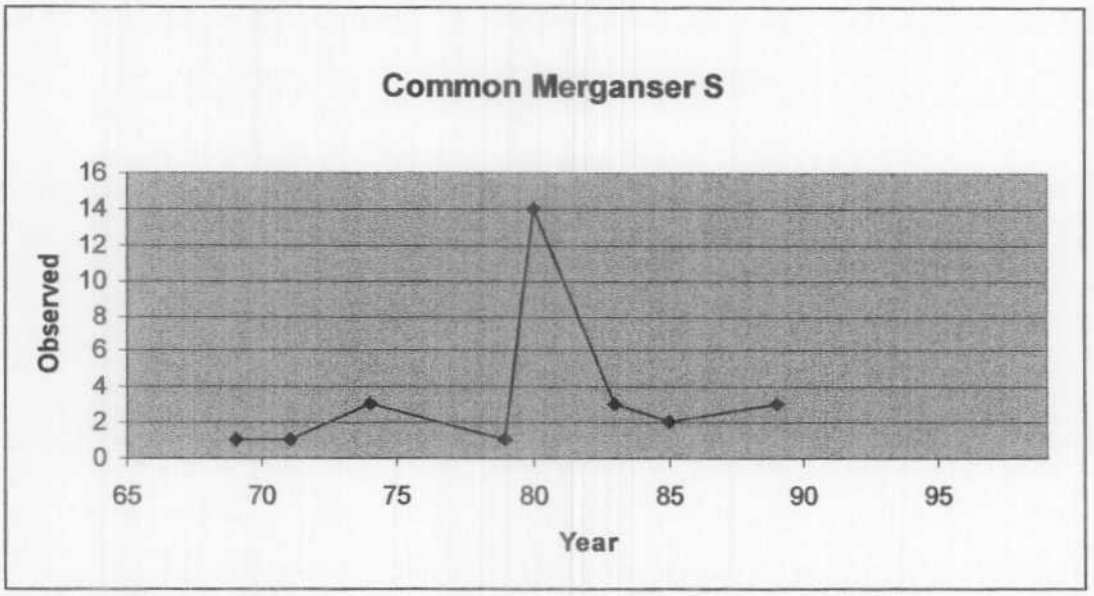
Mean 10 Standard Deviation 18



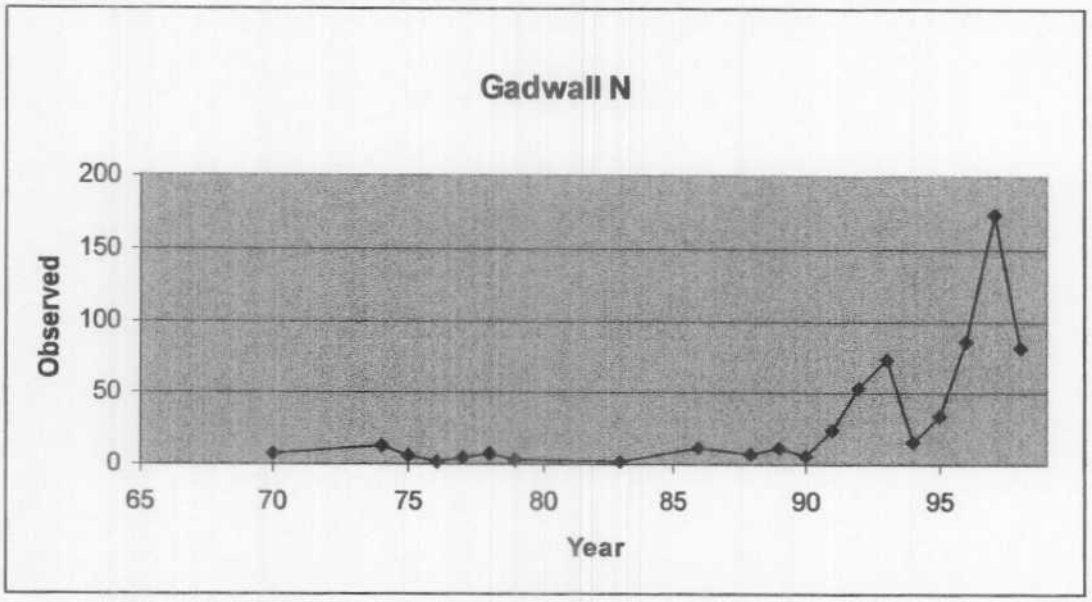
Mean 30 Standard Deviation 28



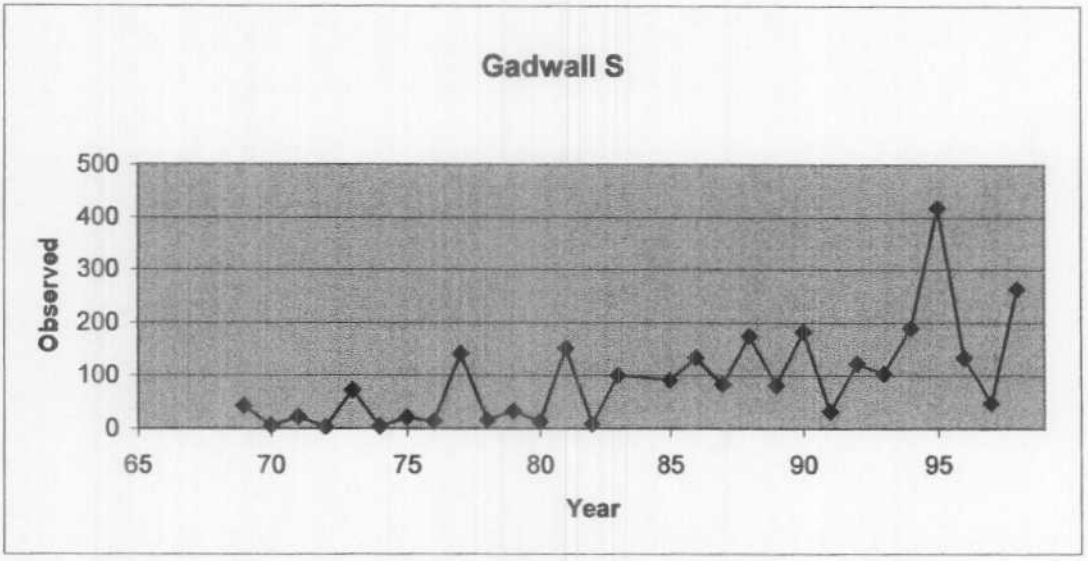
Mean 2 Standard Deviation 2



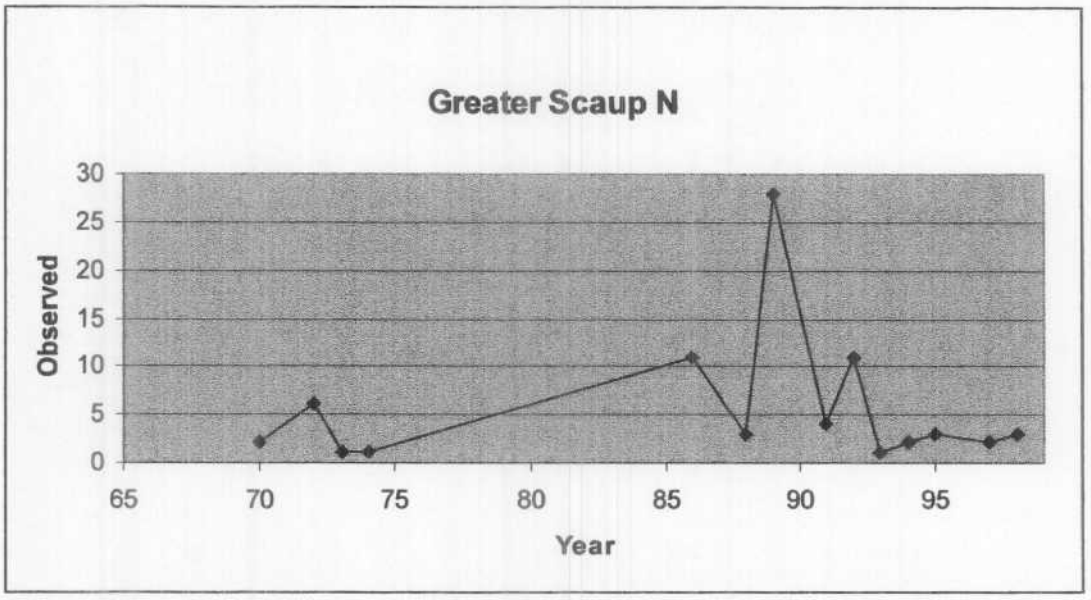
Mean 3 Standard Deviation 4



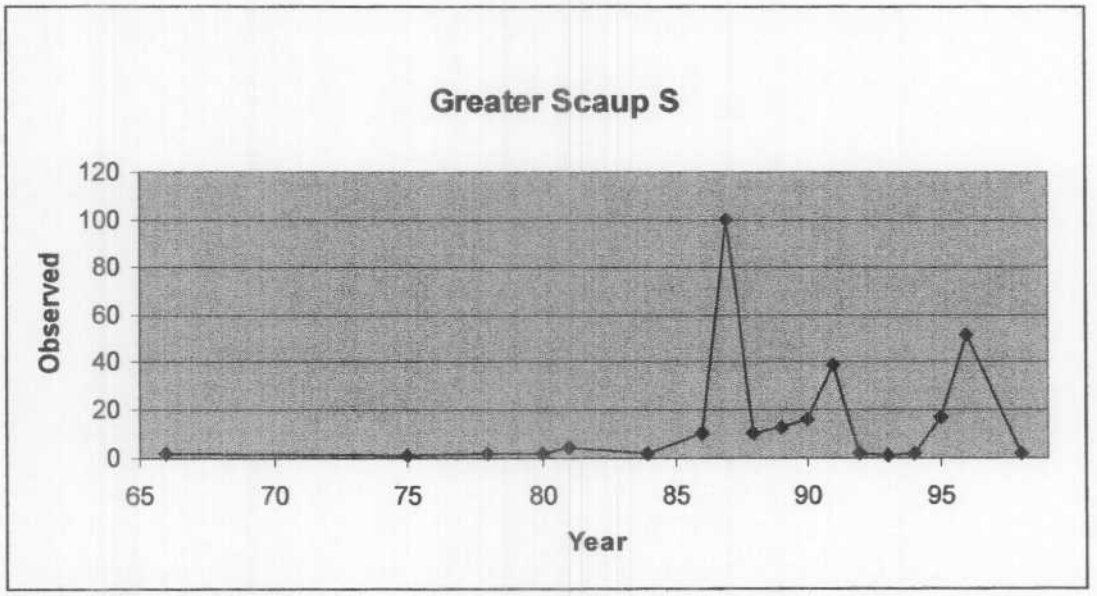
Mean 30 Standard Deviation 42



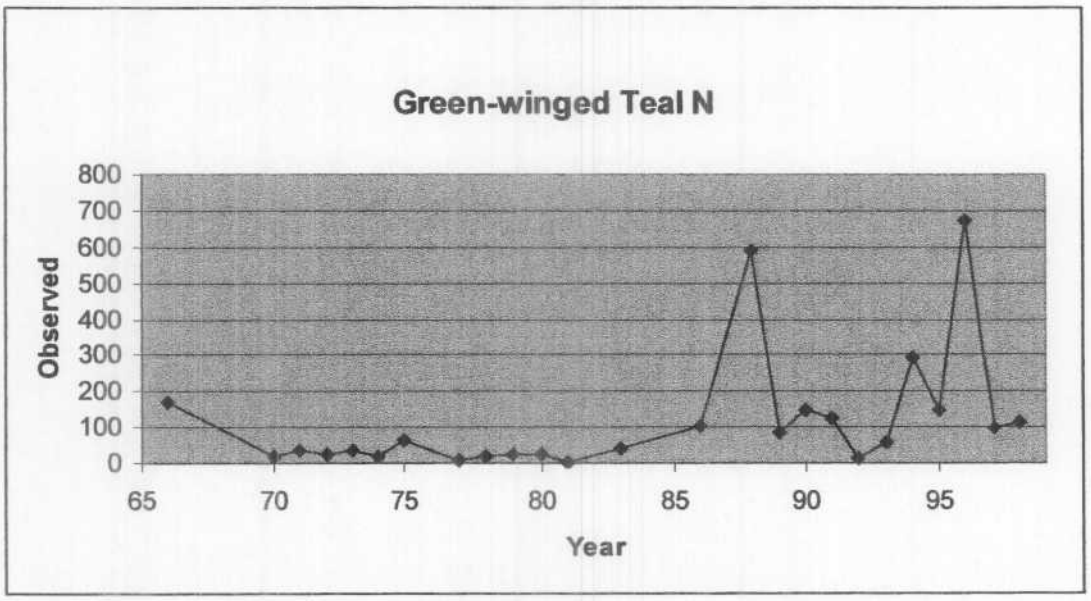
Mean 92 Standard Deviation 91



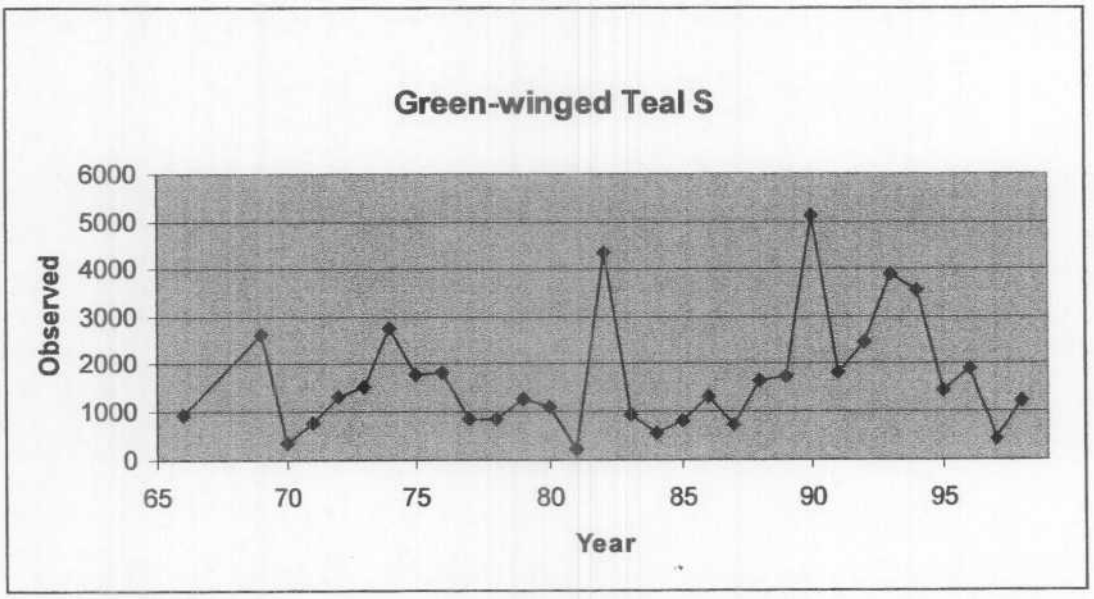
Mean 5 Standard Deviation 6



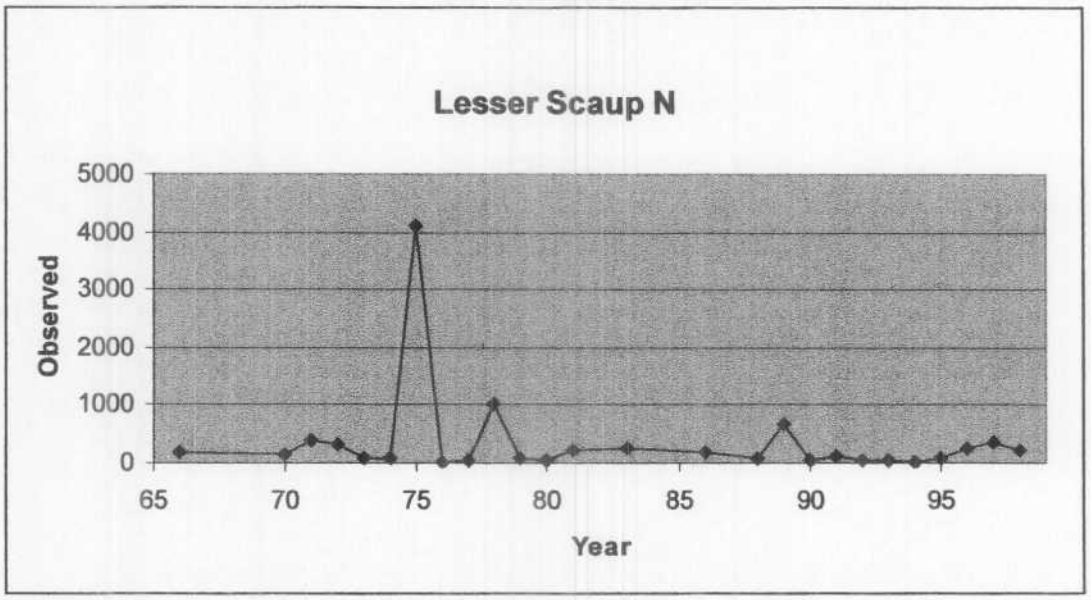
Mean 15 Standard Deviation 24



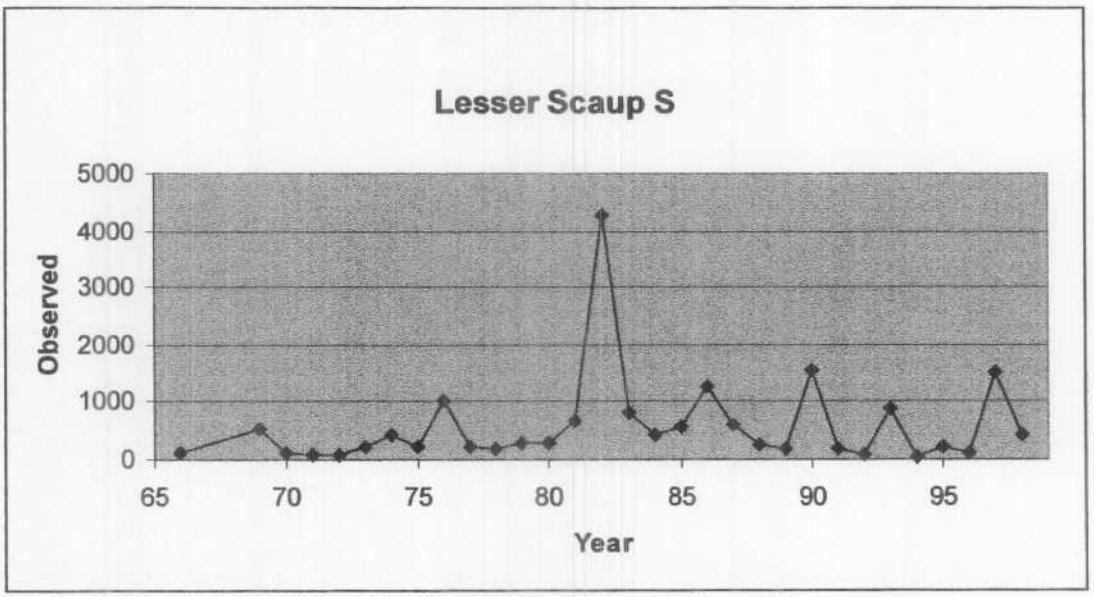
Mean 115 Standard Deviation 165



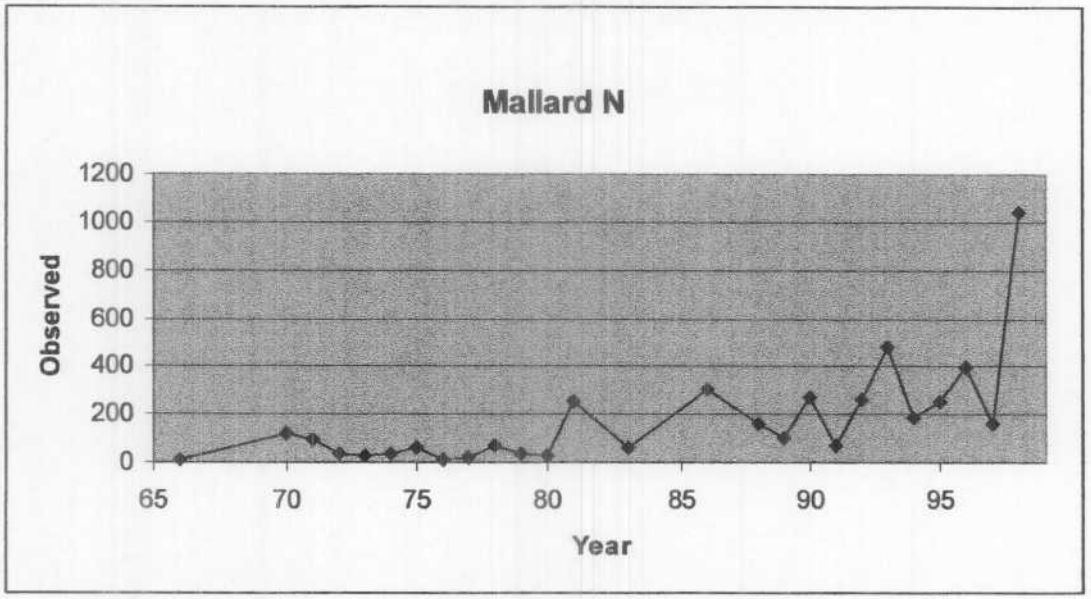
Mean 1664 Standard Deviation 1172



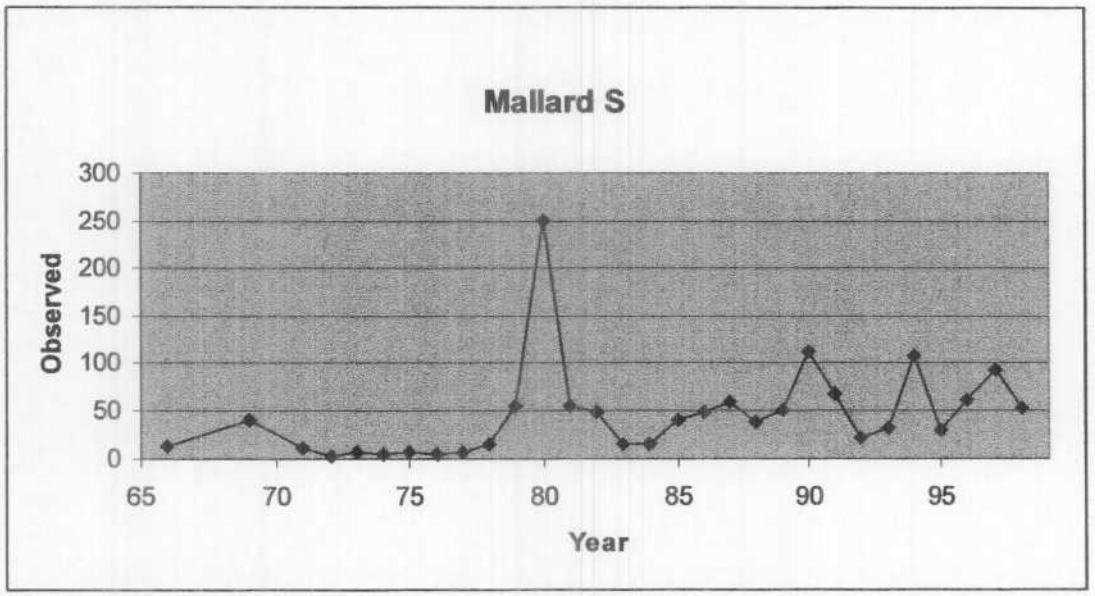
Mean 342 Standard Deviation 783



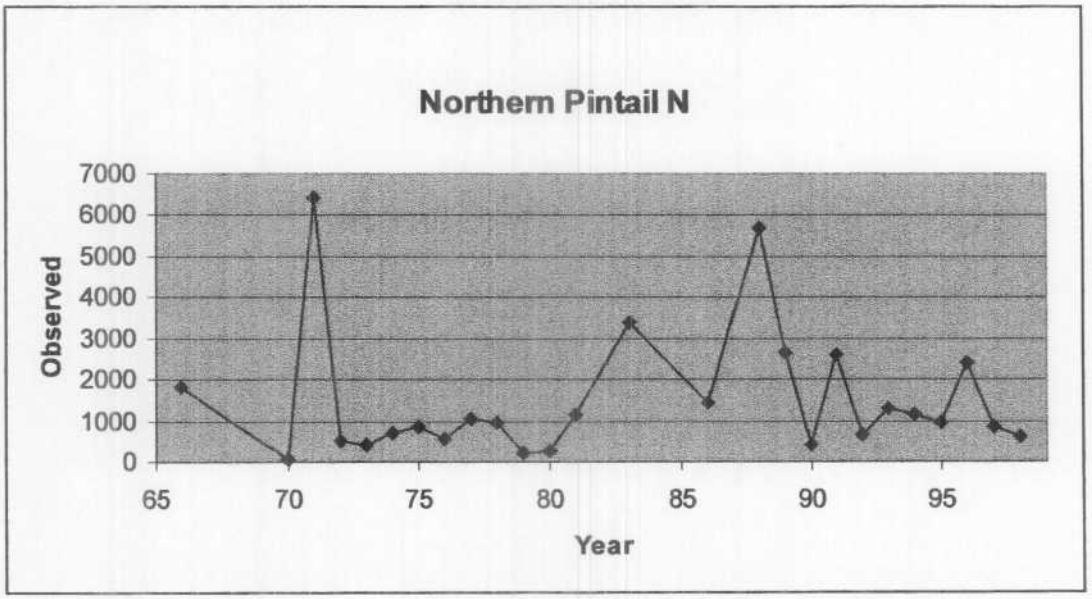
Mean 173 Standard Deviation 213



Mean 173 Standard Deviation 213

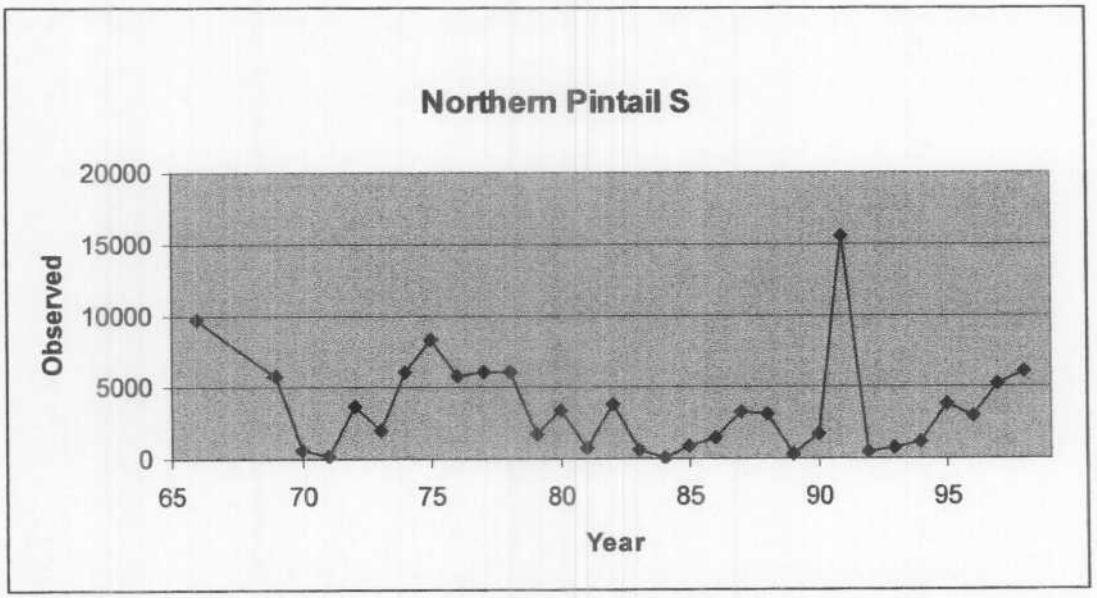


Mean 45 Standard Deviation 48



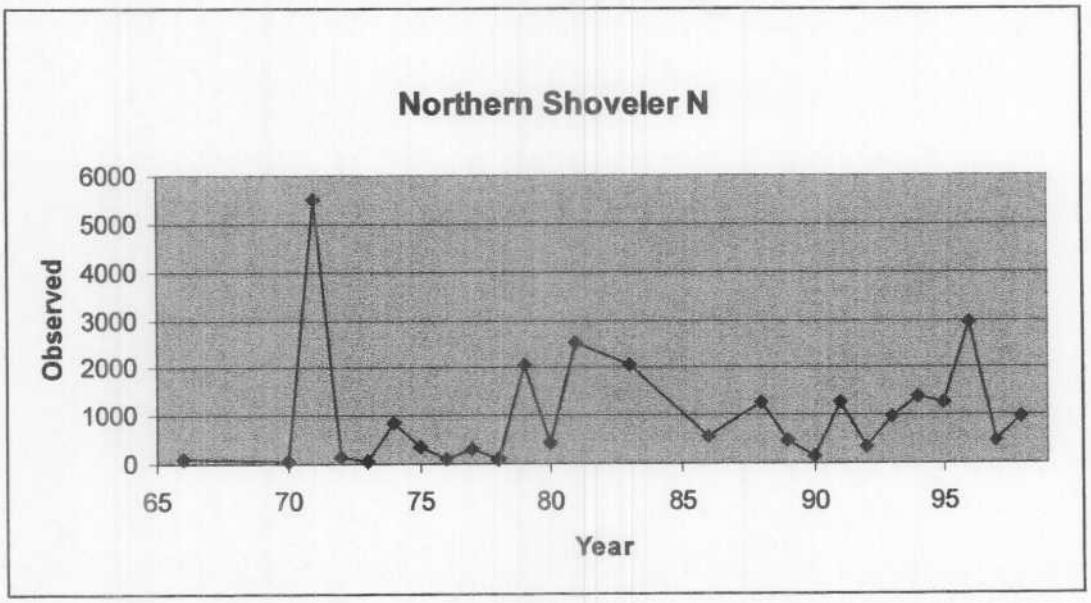
Mean 1489

Standard Deviation 1551

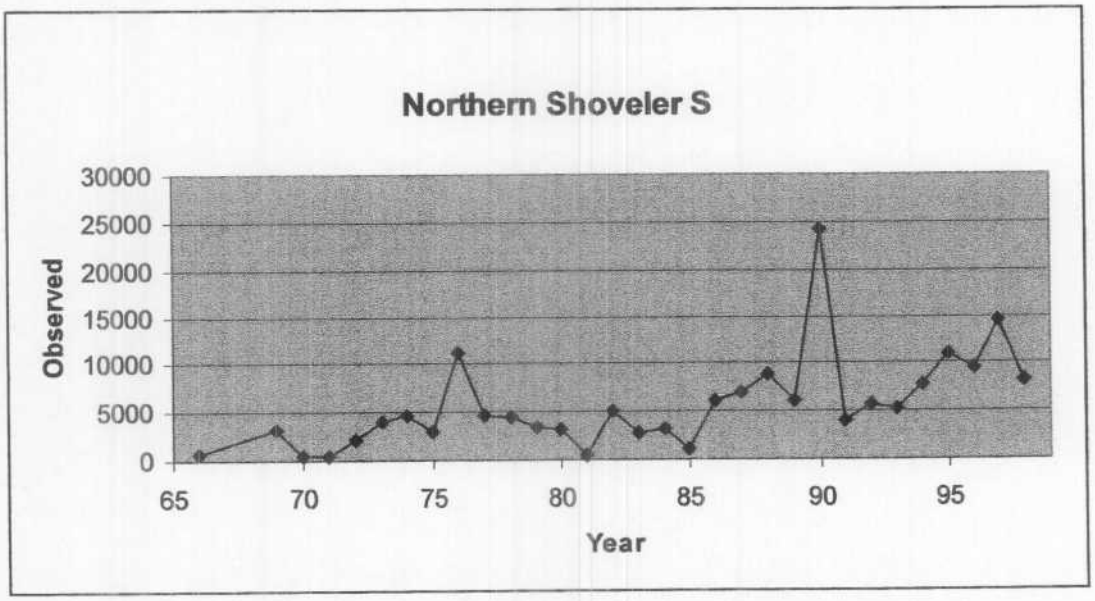


Mean 3550

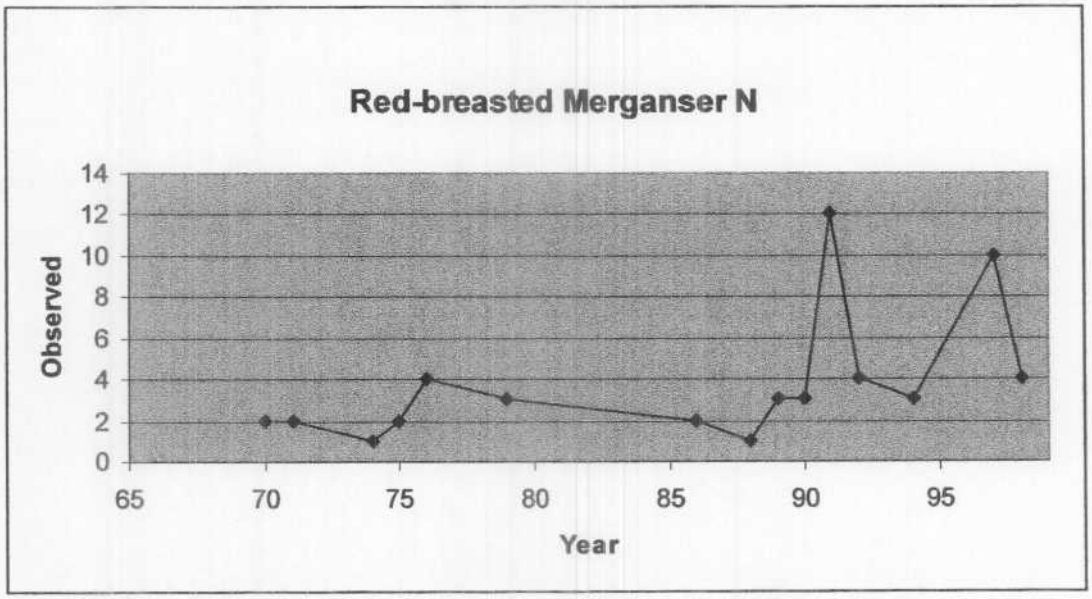
Standard Deviation 3354



Mean 1017 Standard Deviation 1199

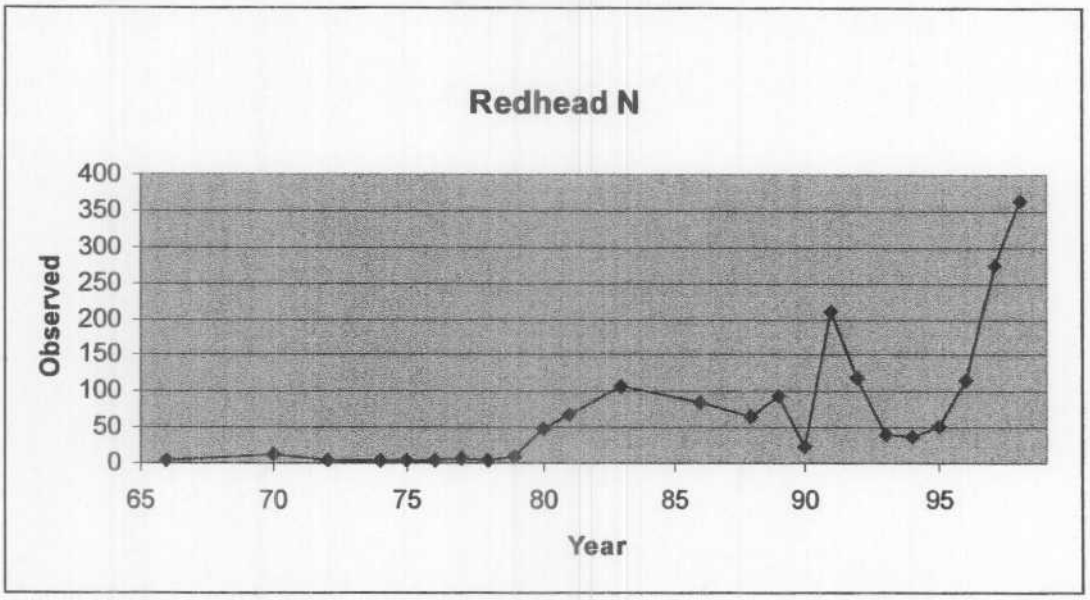


Mean 5654 Standard Deviation 4765

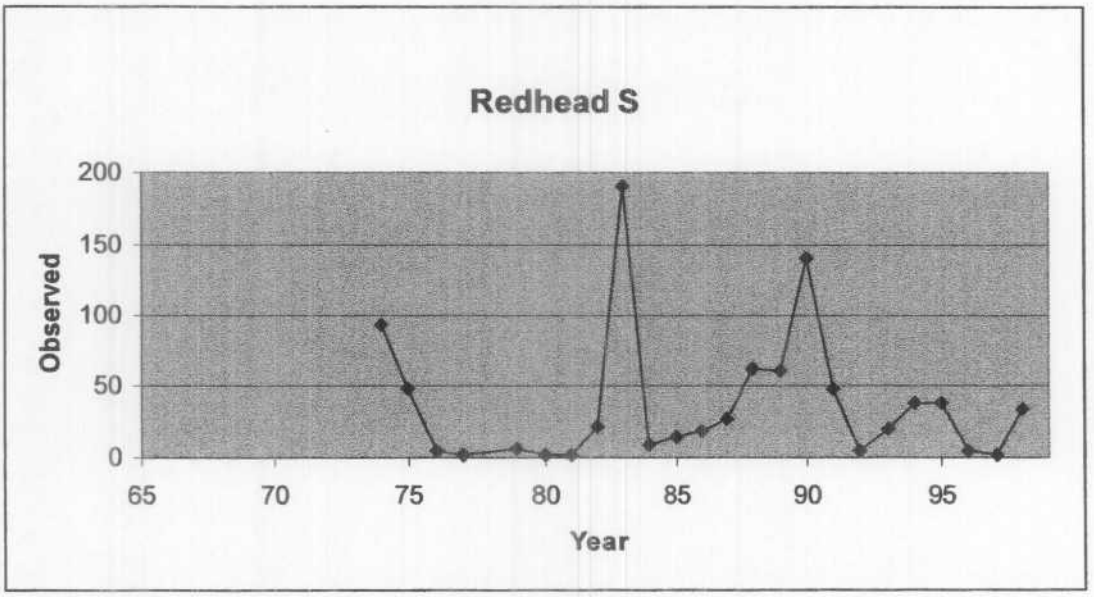


Mean 3

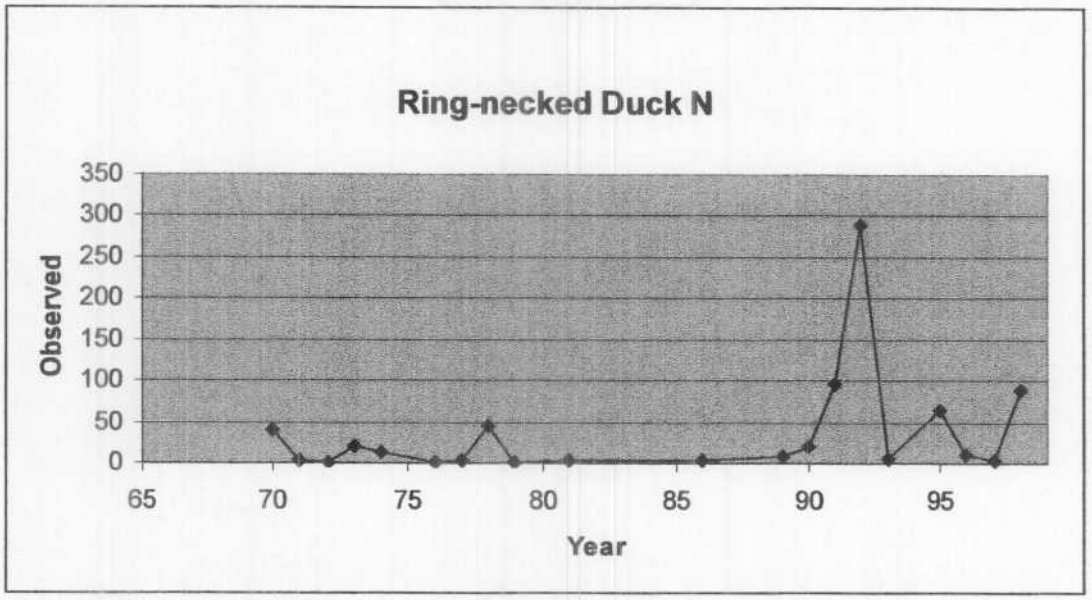
Standard Deviation 3



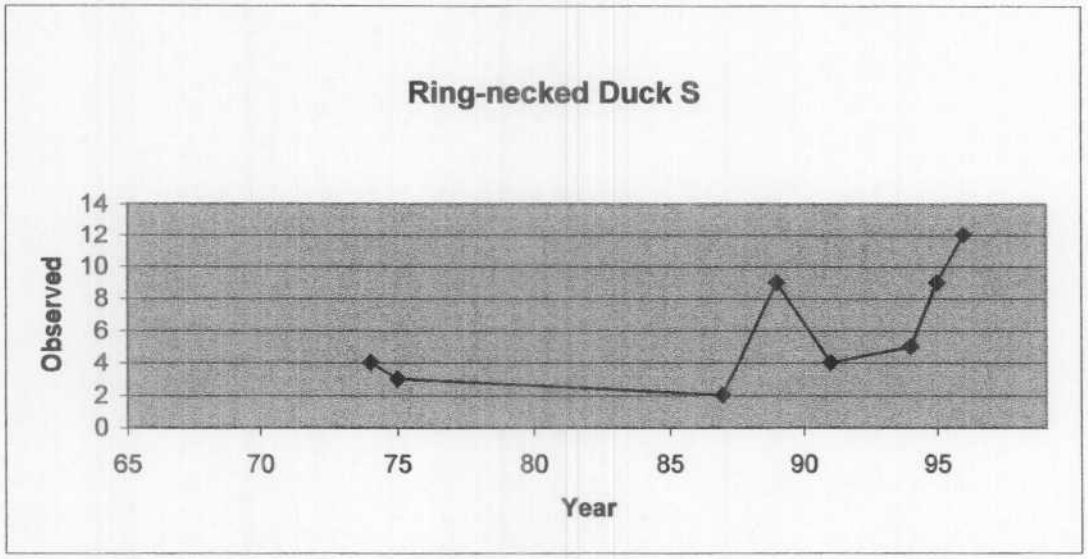
Mean 72 Standard Deviation 90



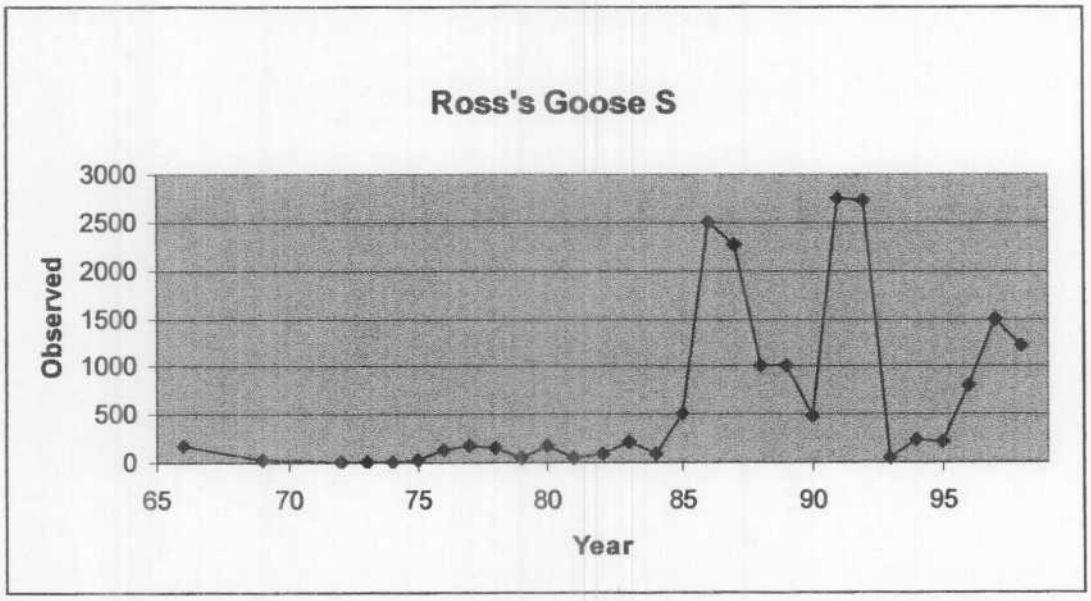
Mean 36 Standard Deviation 45



Mean 35 Standard Deviation 65

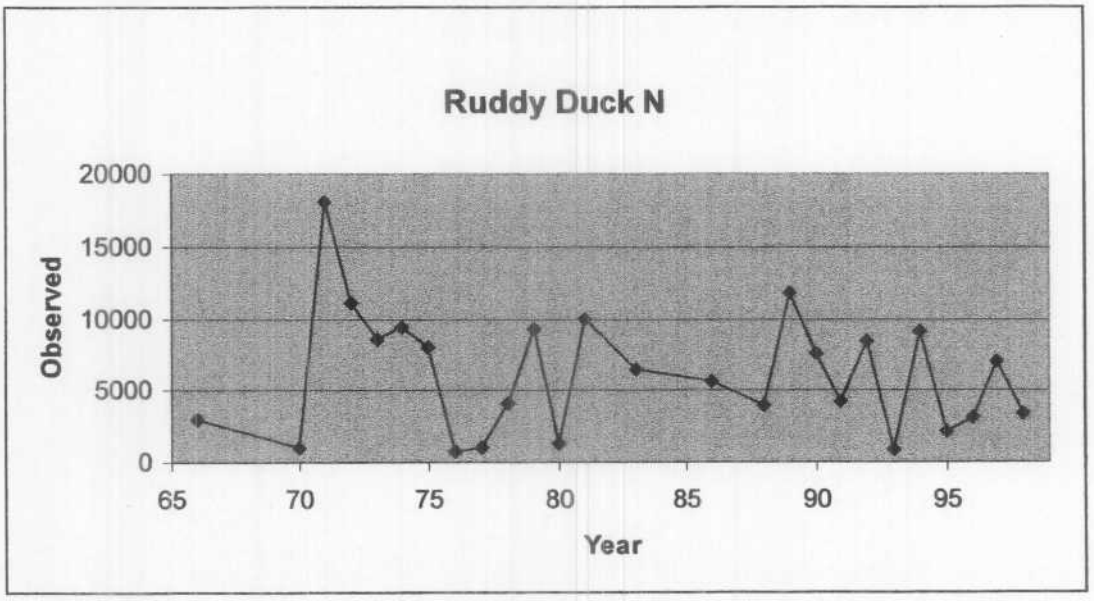


Mean 6 Standard Deviation 3



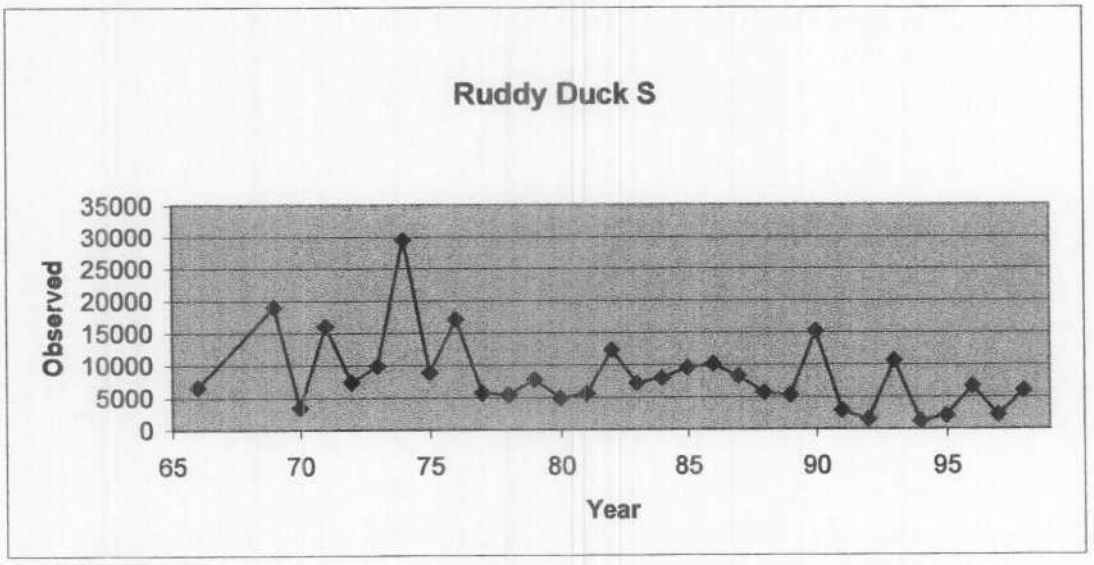
Mean 638

Standard Deviation 864



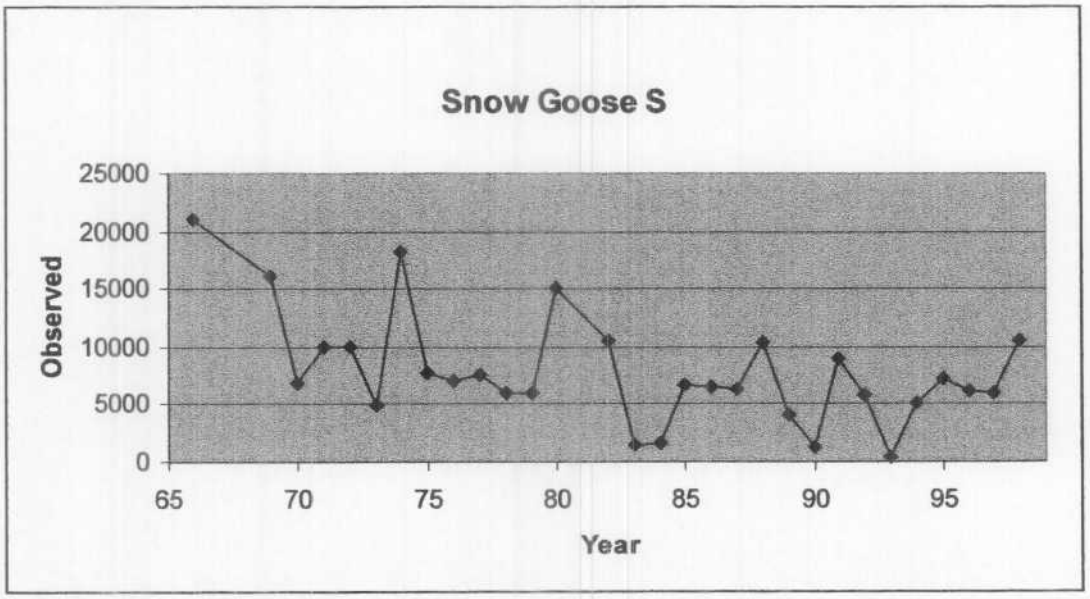
Mean 4153

Standard Deviation 6085



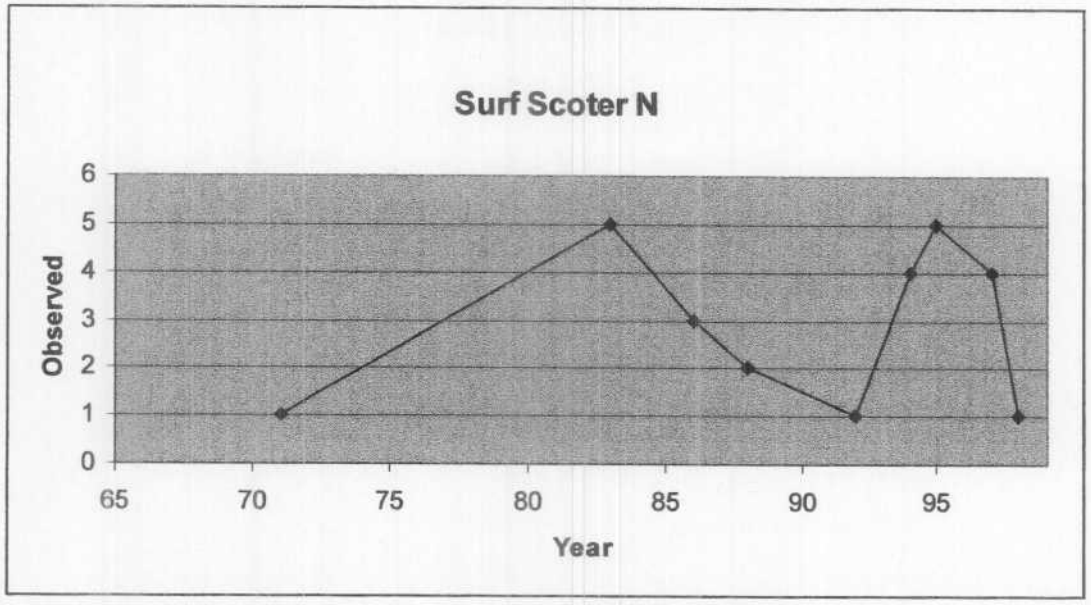
Mean 8388

Standard Deviation 5881

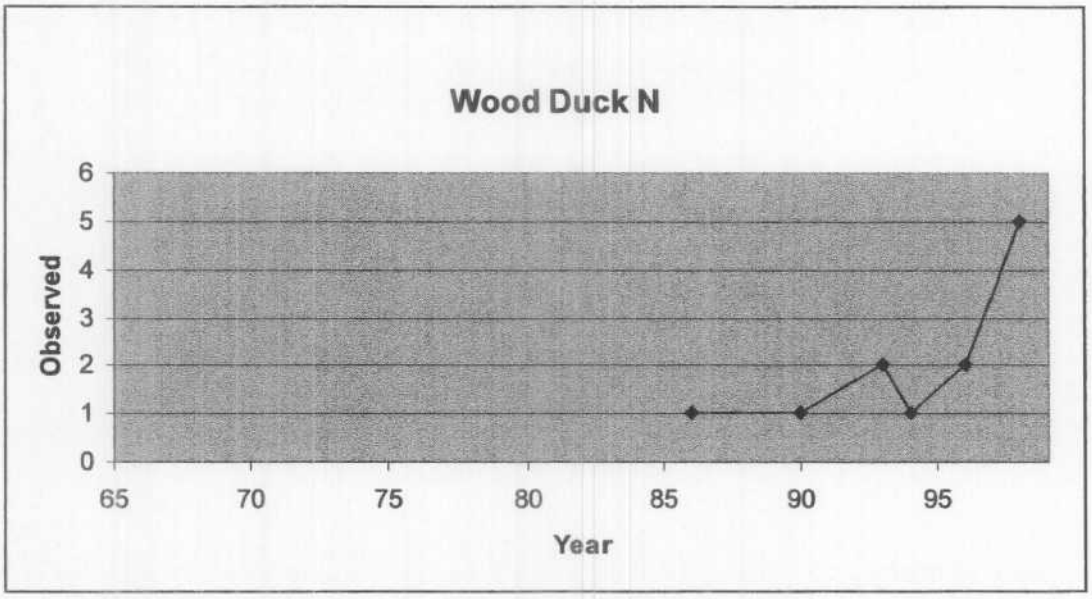


Mean 7806

Standard Deviation 4711

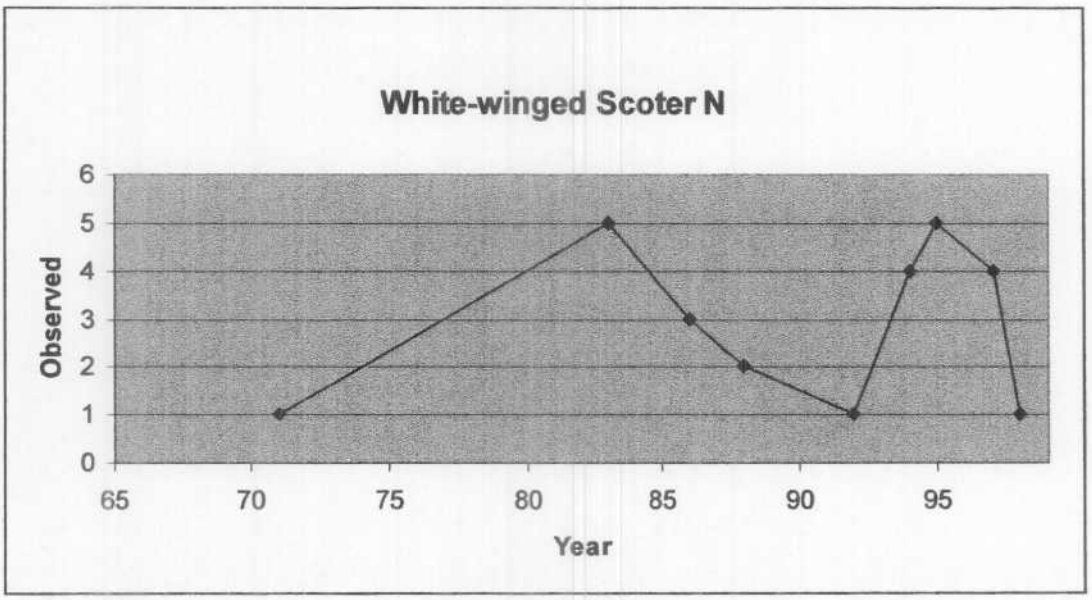


Mean 2 Standard Deviation 1



Mean 2

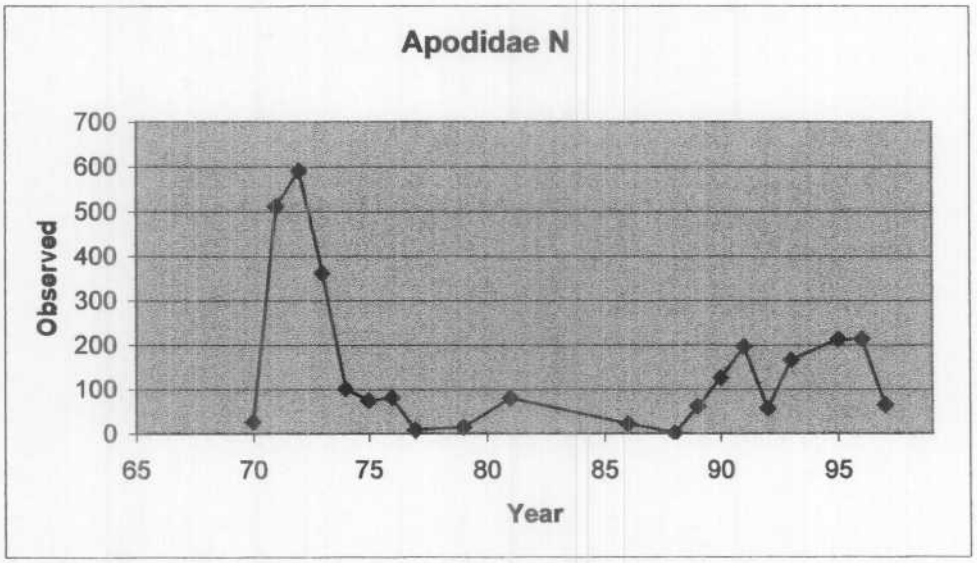
Standard Deviation 1



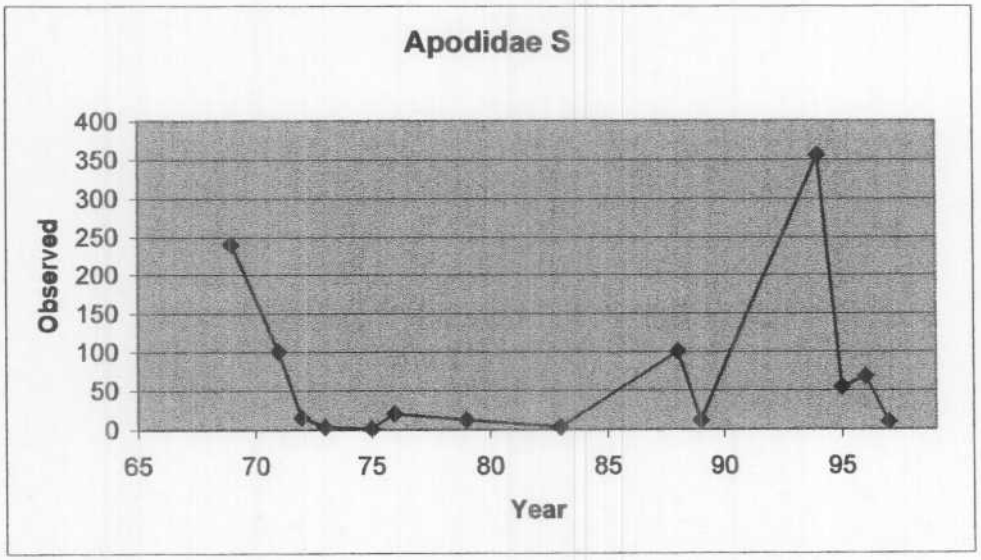
Mean 4

Standard Deviation 6

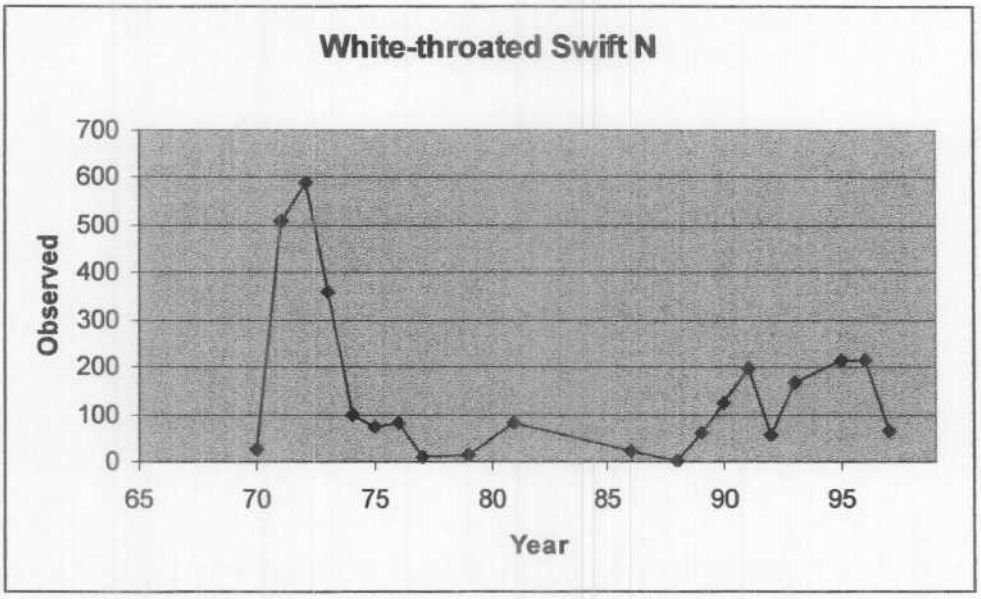
APODIDAE



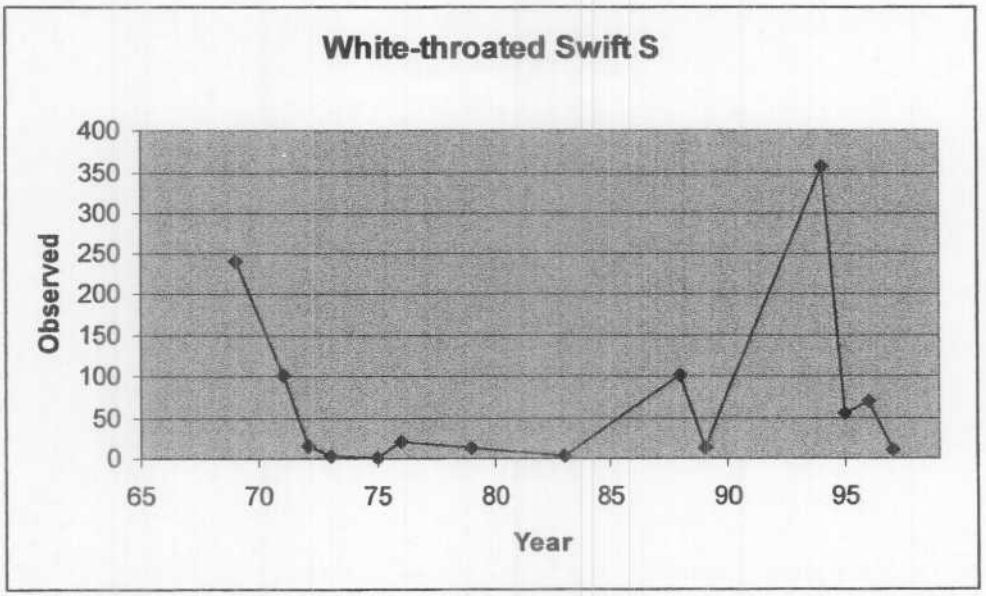
Mean 148 Standard Deviation 160



Mean 70 Standard Deviation 100

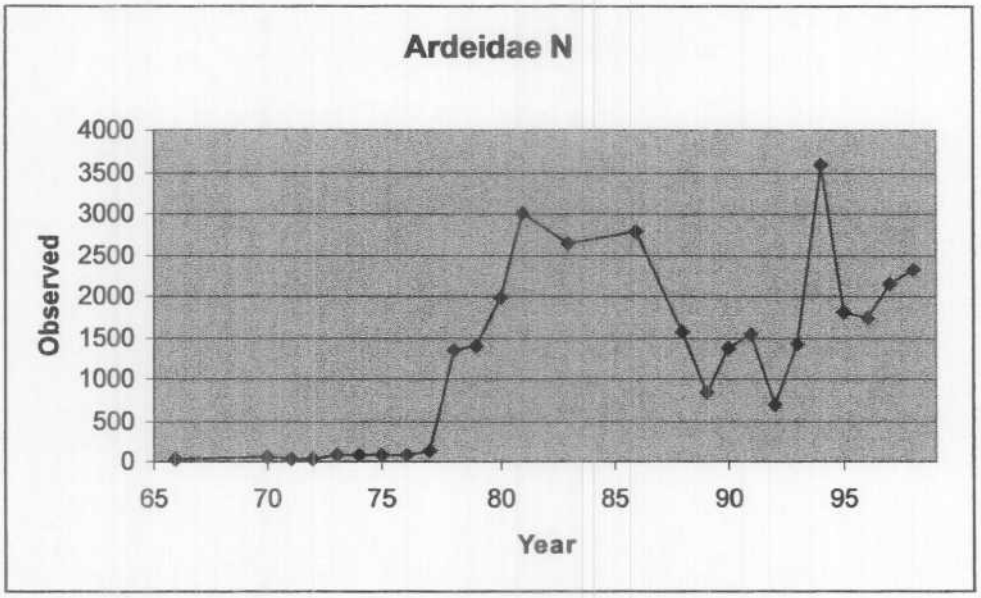


Mean 148 Standard Deviation 160

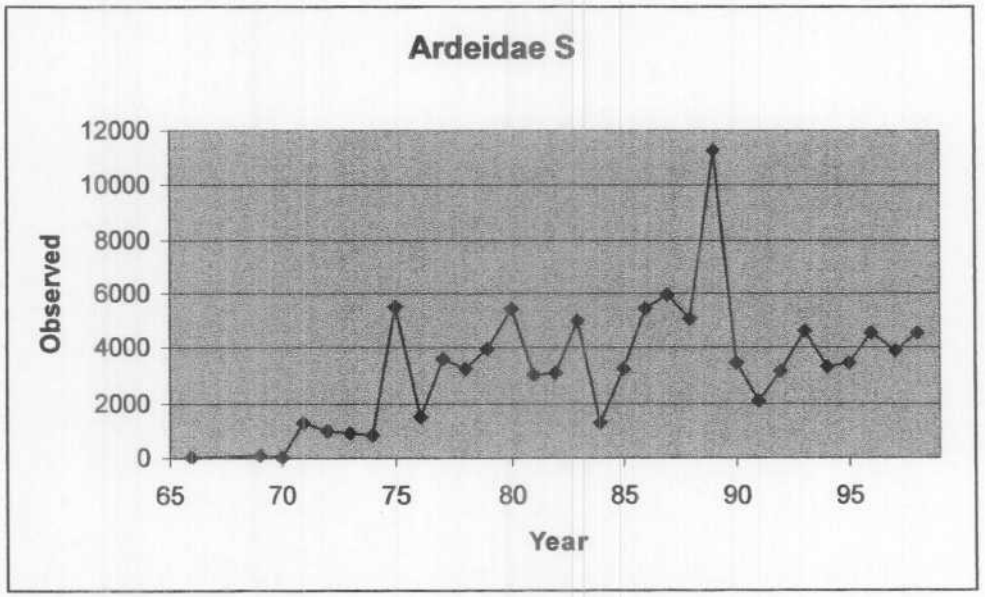


Mean 70 Standard Deviation 100

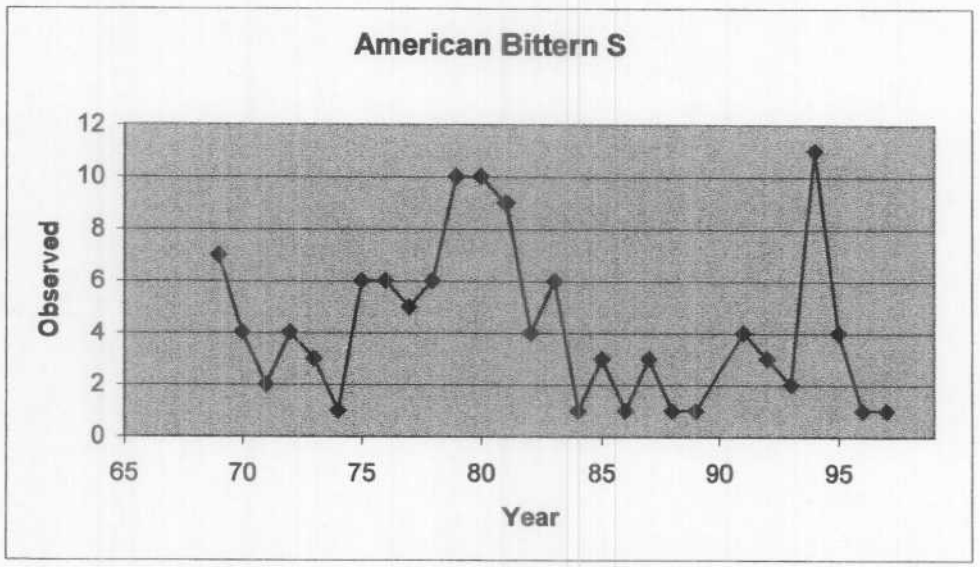
ARDEIDAE



Mean 1257 Standard Deviation 1059

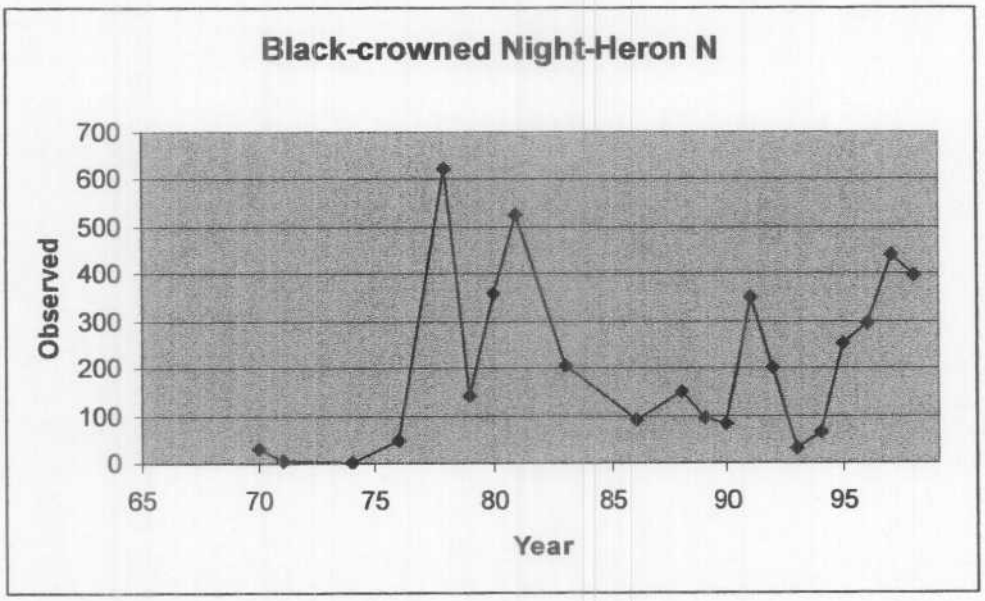


Mean 3332 Standard Deviation 2265

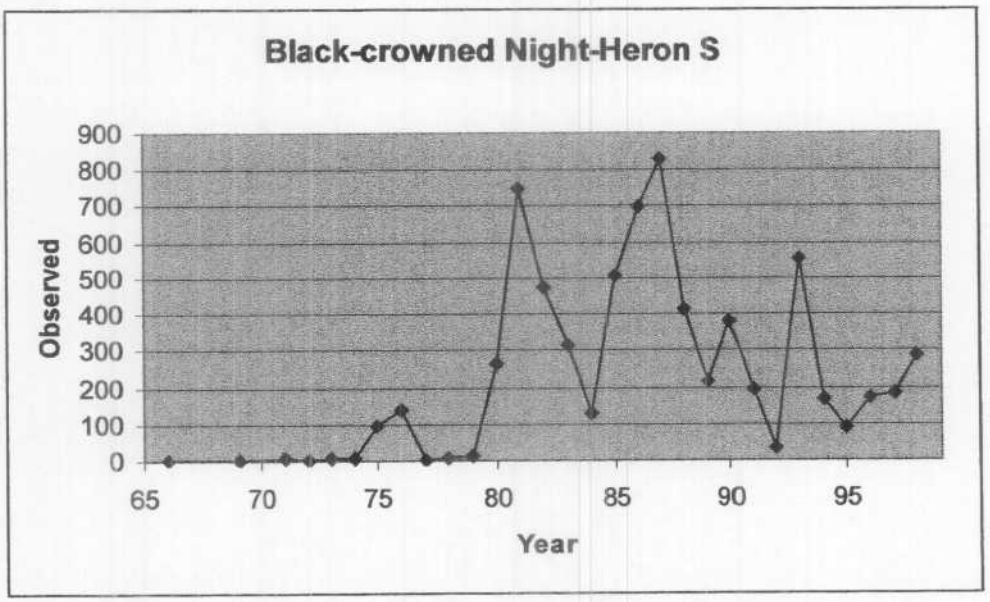


Mean 3

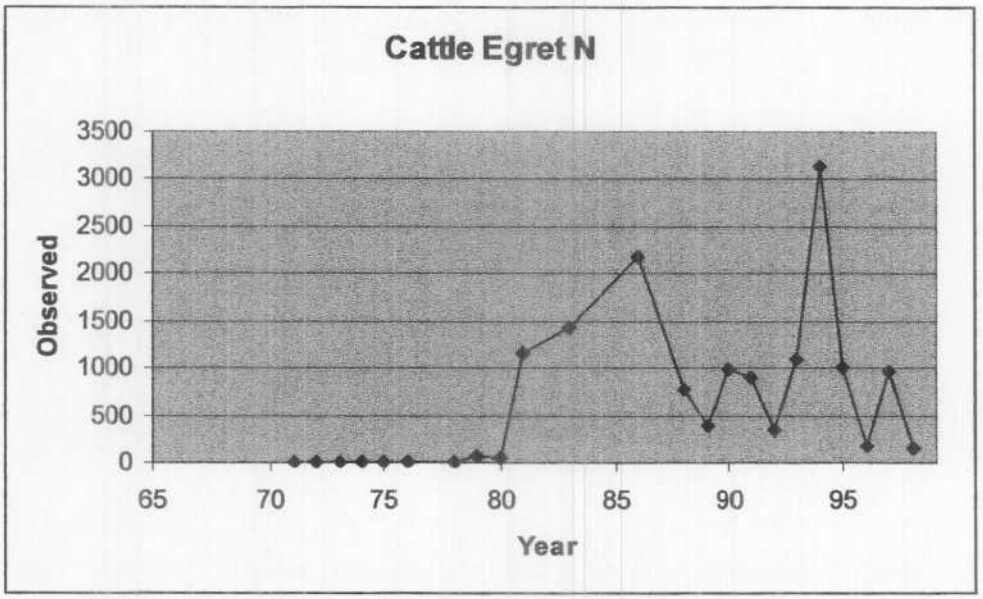
Standard Deviation 3



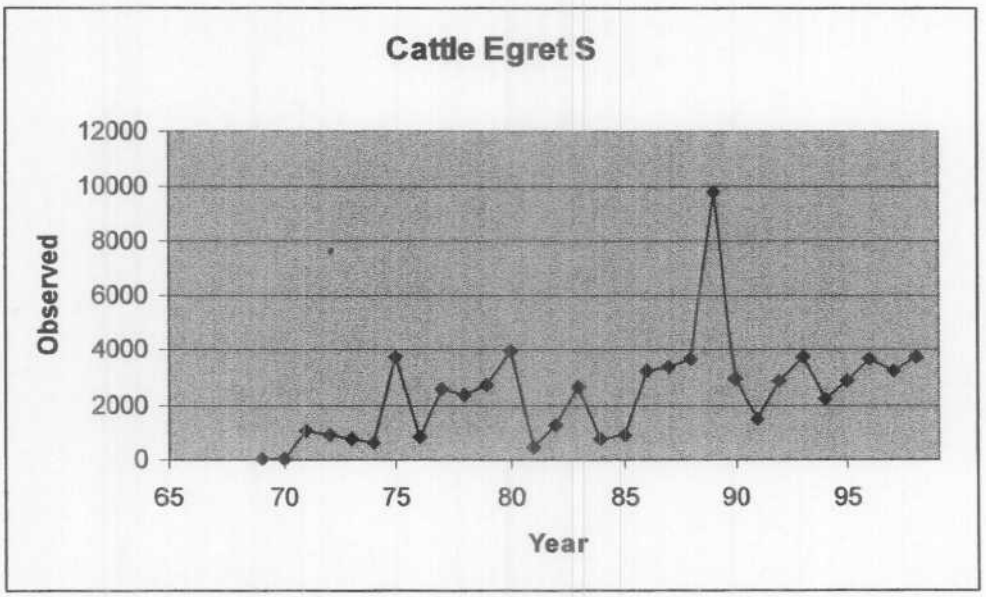
Mean 208 Standard Deviation 177



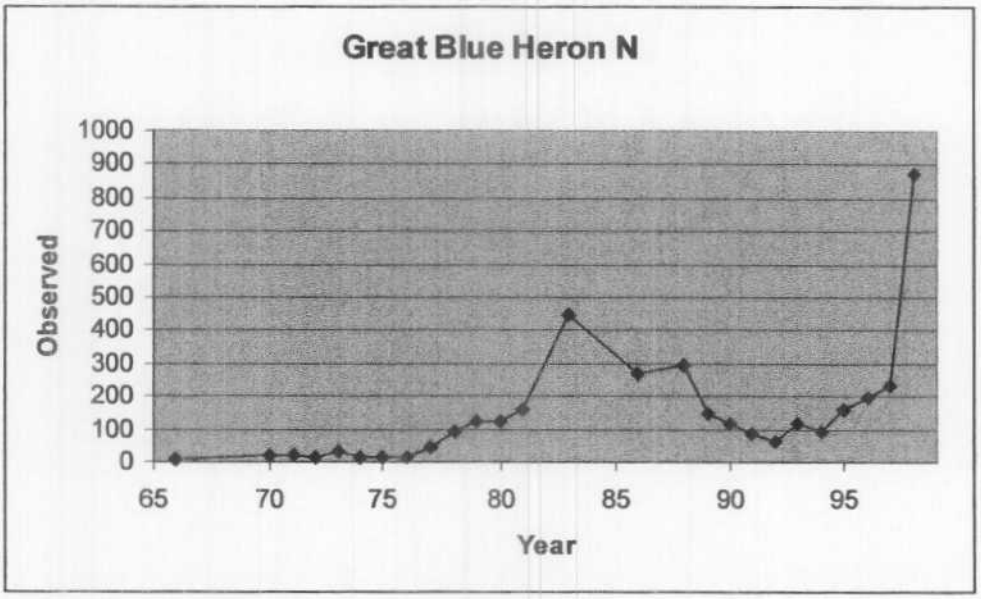
Mean 229 Standard Deviation 238



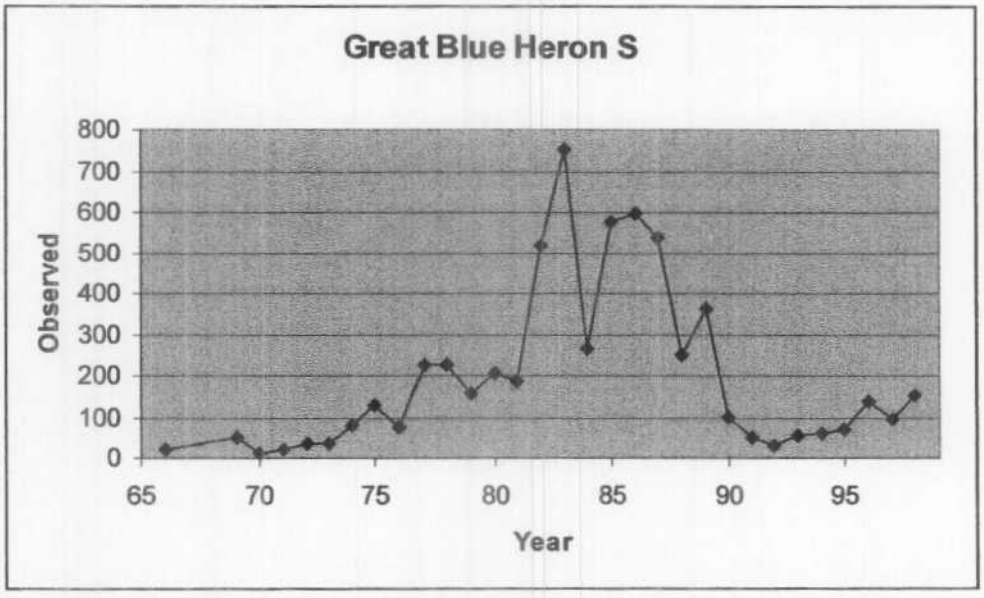
Mean 643 Standard Deviation 787



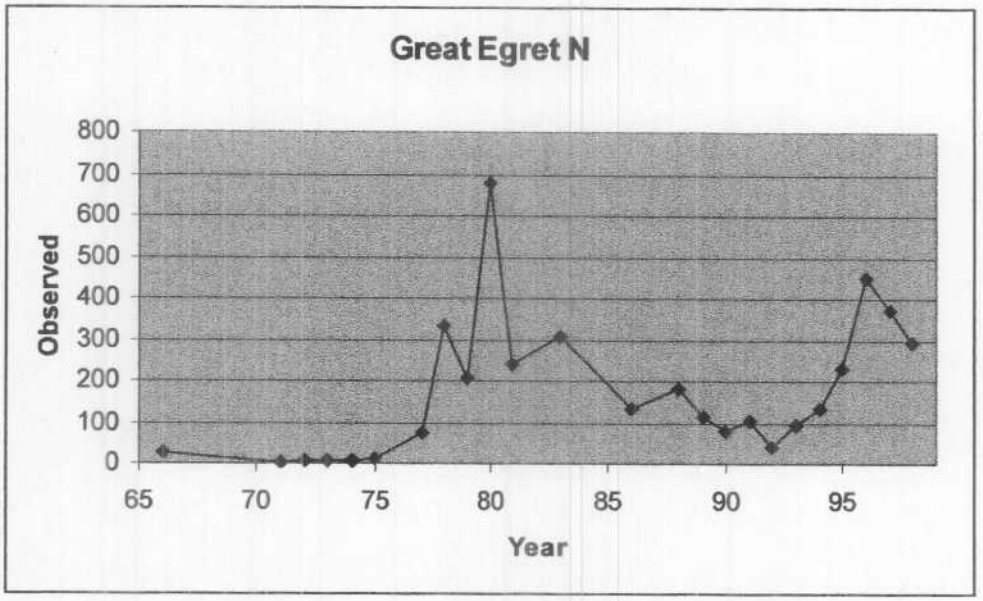
Mean 2392 Standard Deviation 1864



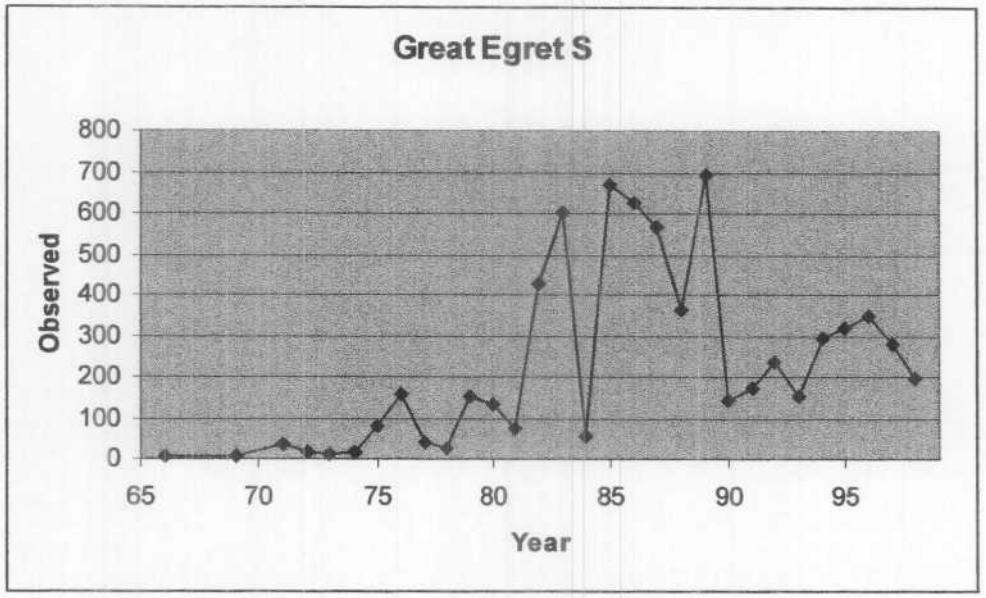
Mean 143 Standard Deviation 178



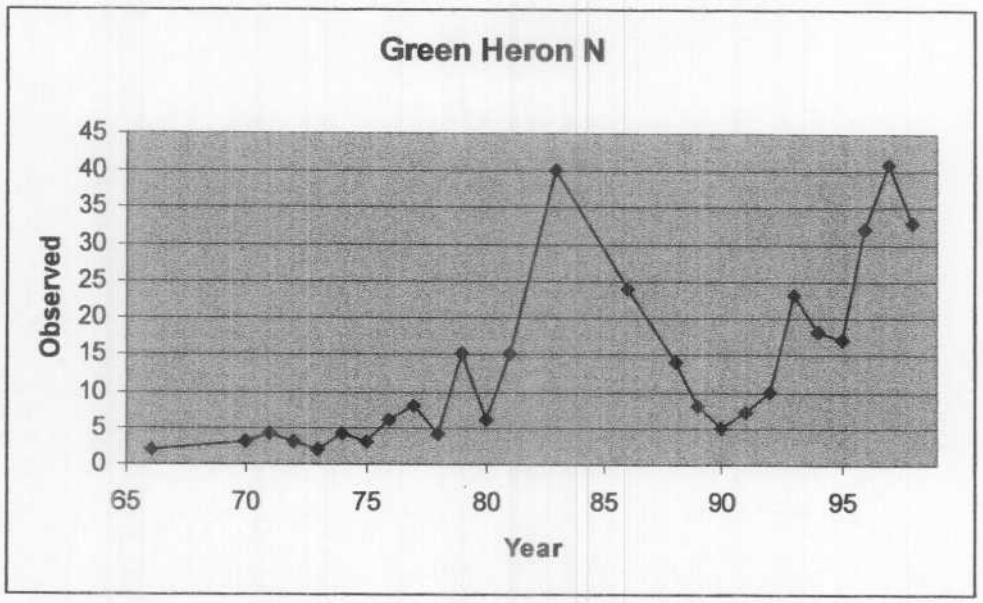
Mean 194 Standard Deviation 197



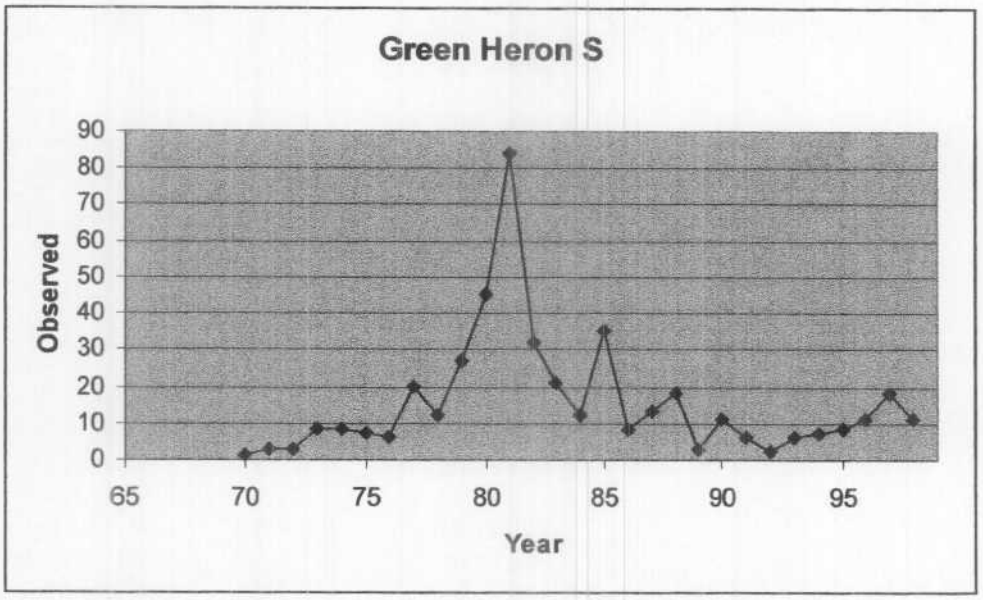
Mean 170 Standard Deviation 164



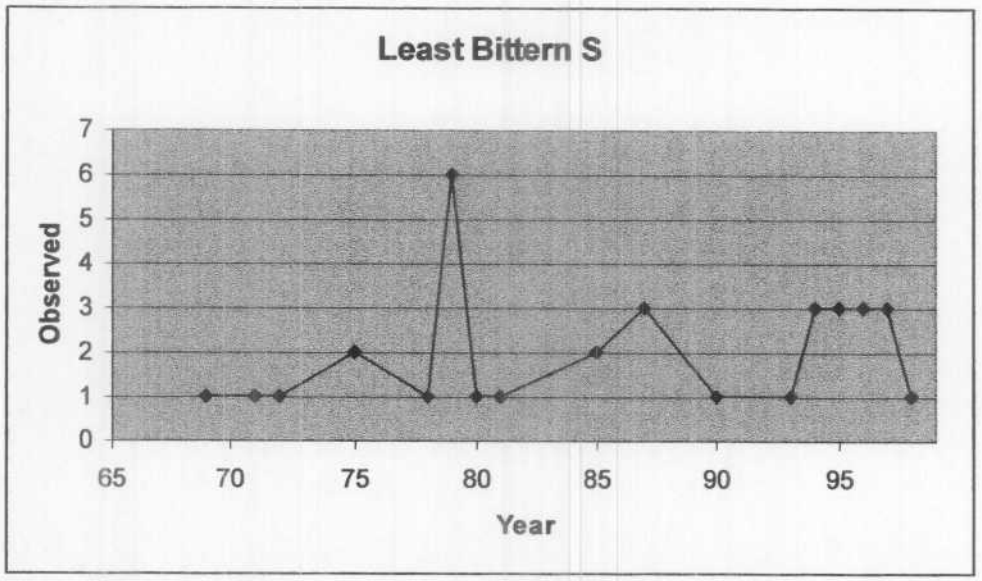
Mean 227 Standard Deviation 214



Mean 13 Standard Deviation 11

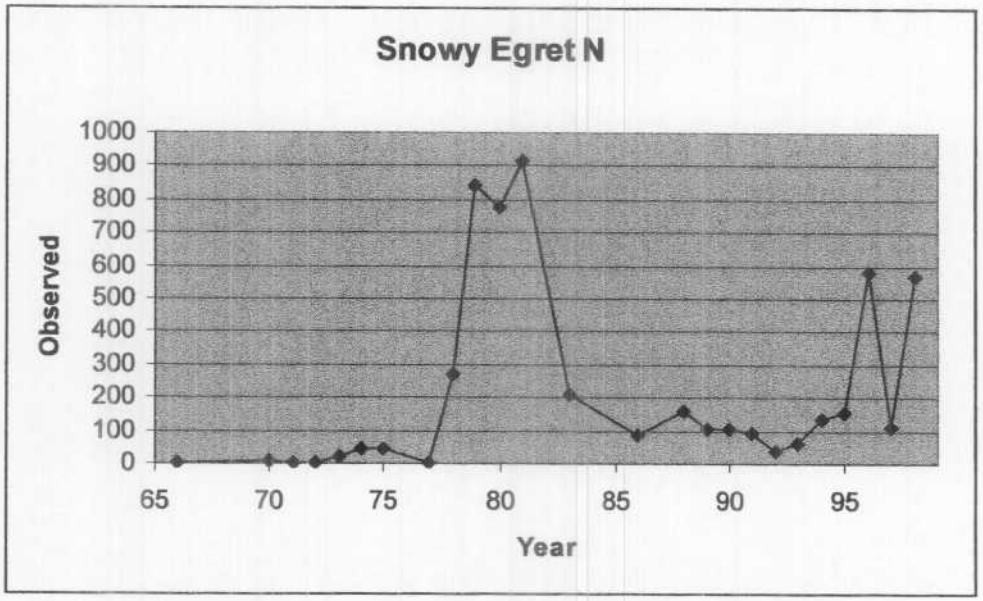


Mean 15 Standard Deviation 16

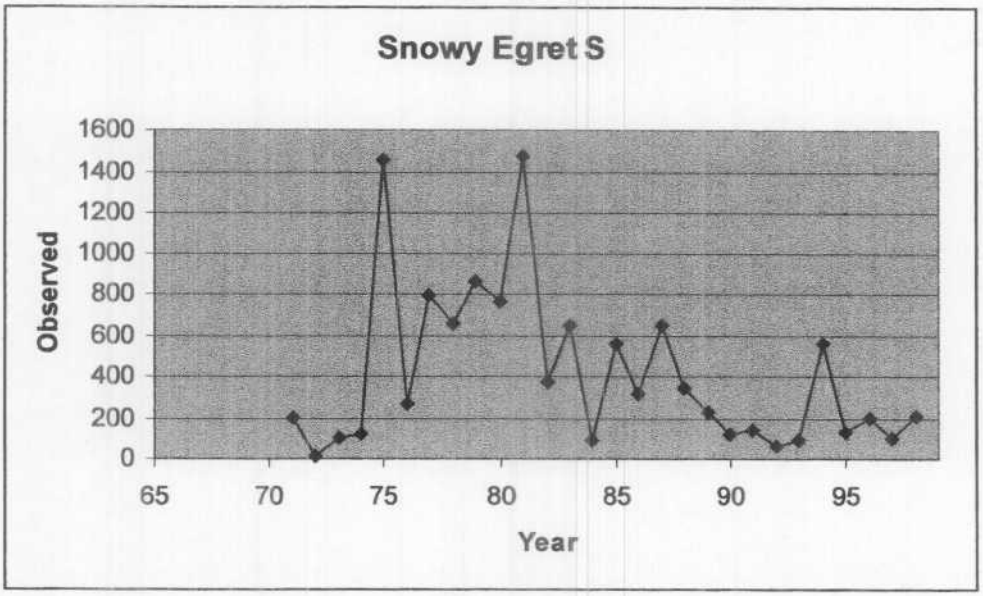


Mean 2

Standard Deviation 1

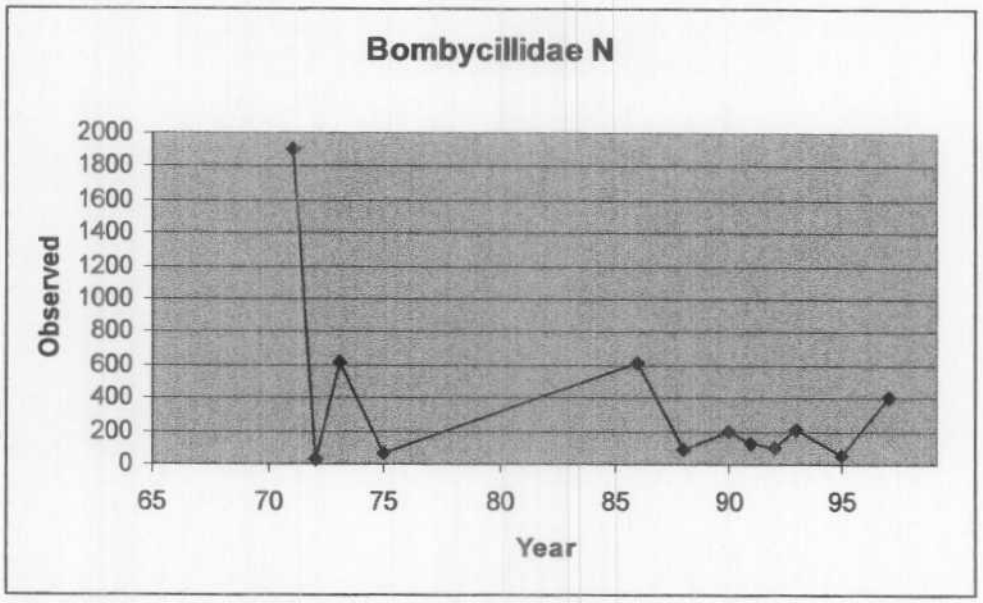


Mean 212 Standard Deviation 276

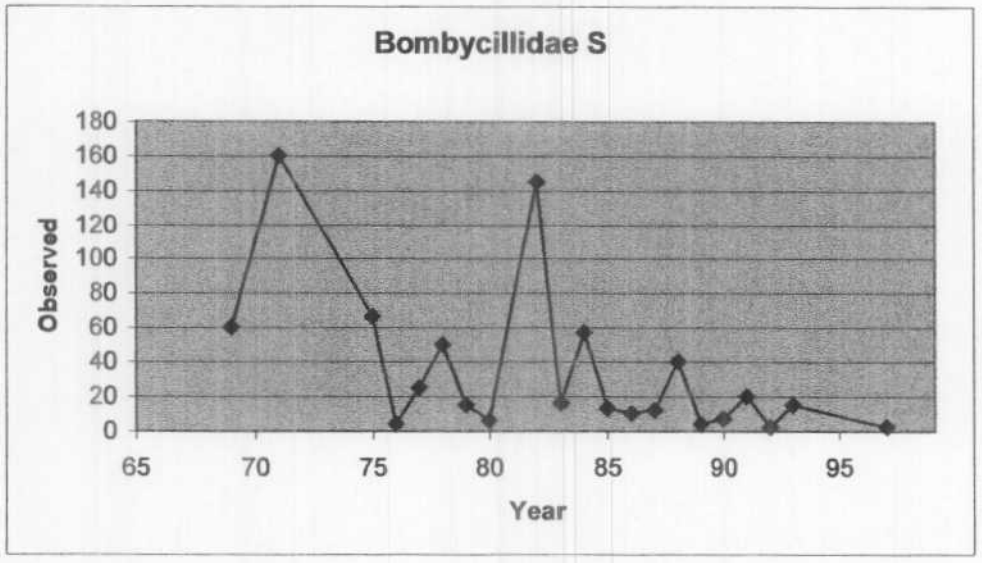


Mean 407 Standard Deviation 382

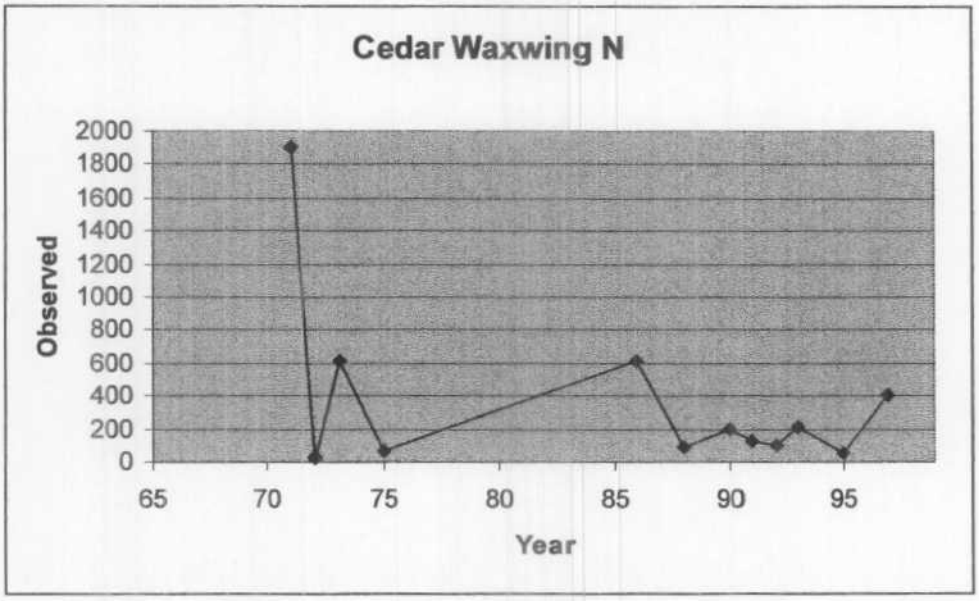
BOMBYCILLIDAE



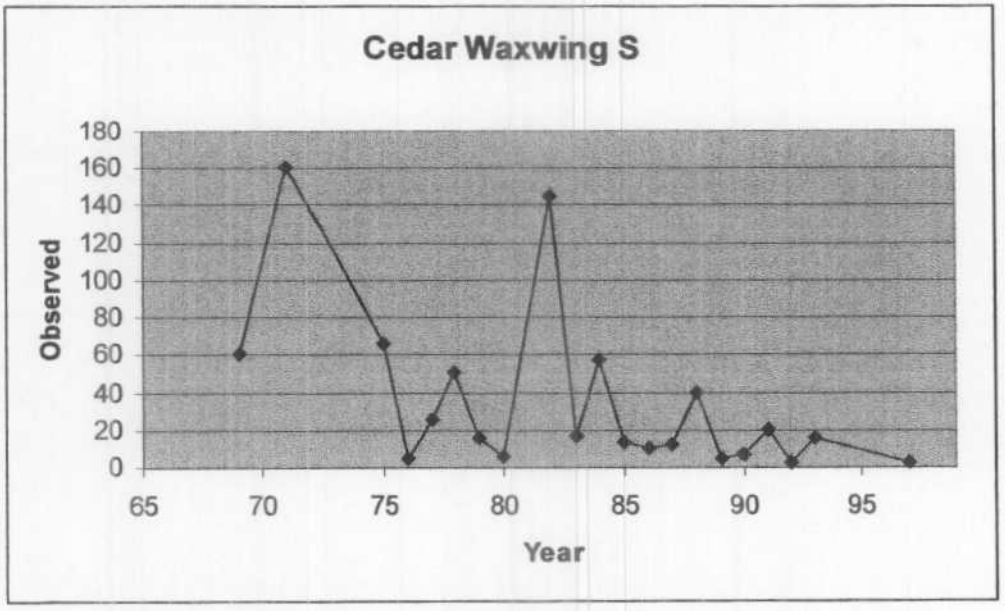
Mean 362 Standard Deviation 504



Mean 34 Standard Deviation 43

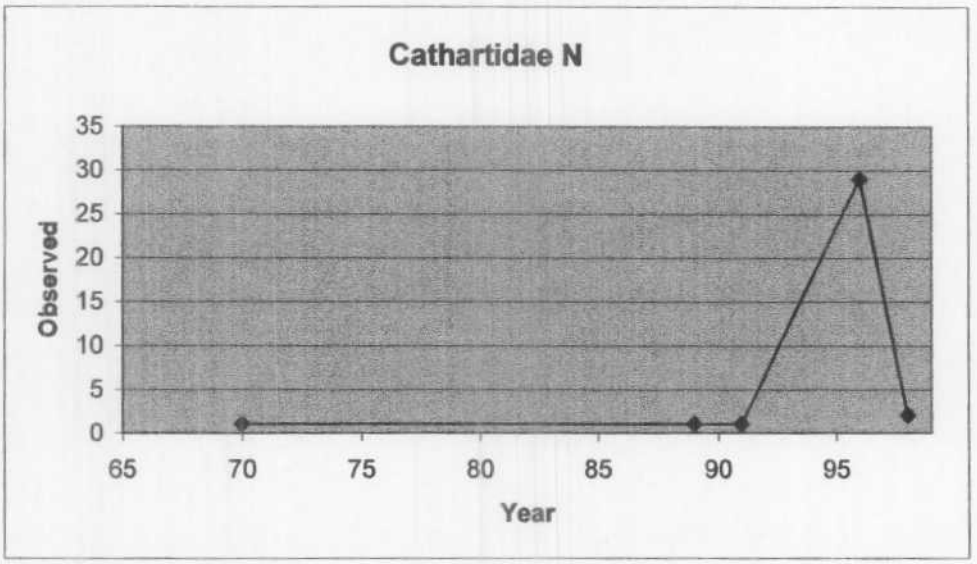


Mean 362 Standard Deviation 504

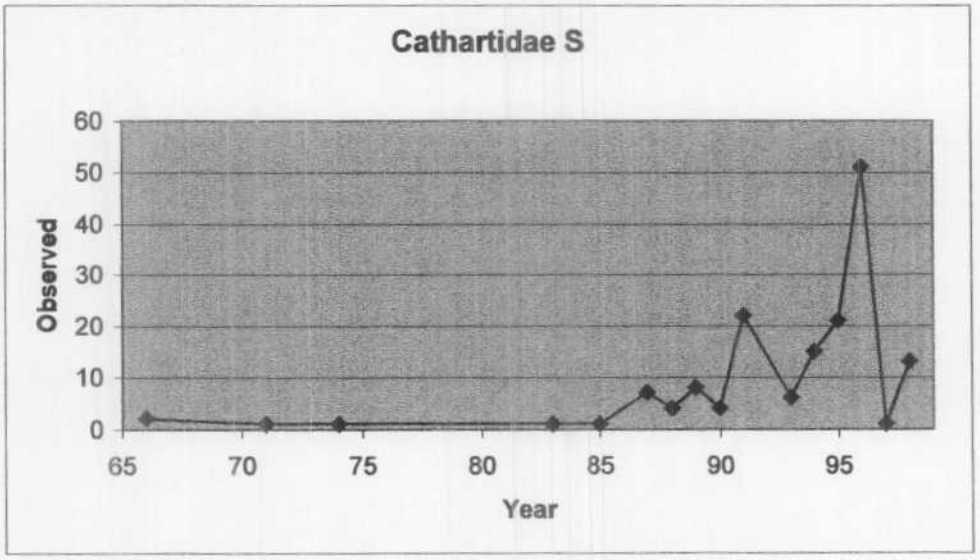


Mean 43 Standard Deviation 34

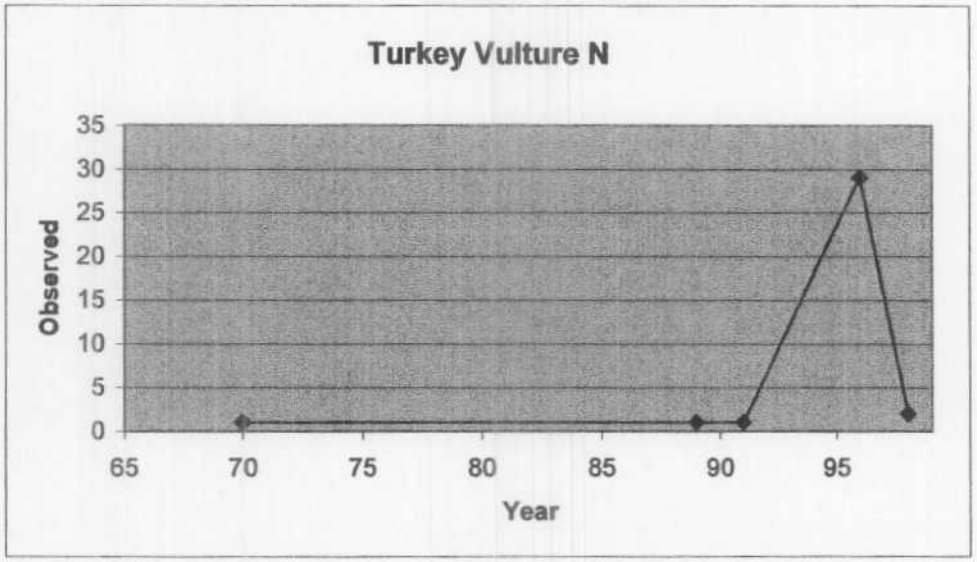
CATHARTIDAE



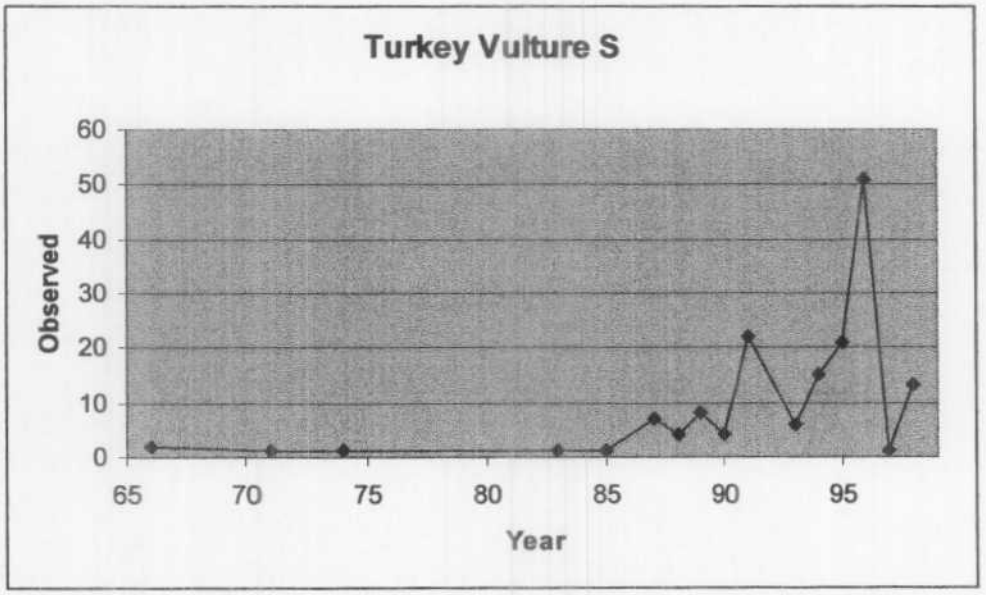
Mean 6 Standard Deviation 11



Mean 11 Standard Deviation 13

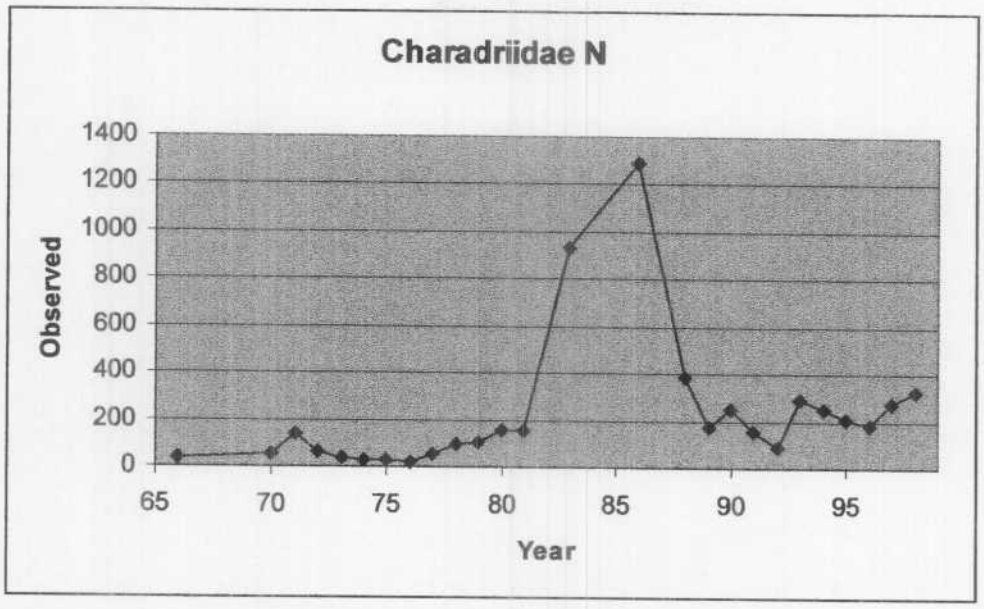


Mean 6 Standard Deviation 11

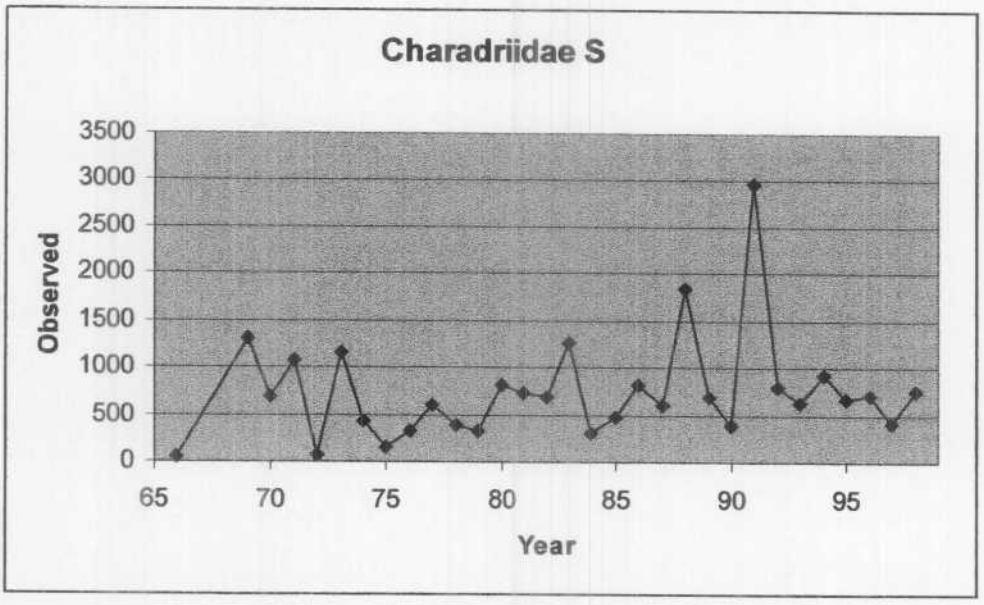


Mean 11 Standard Deviation 13

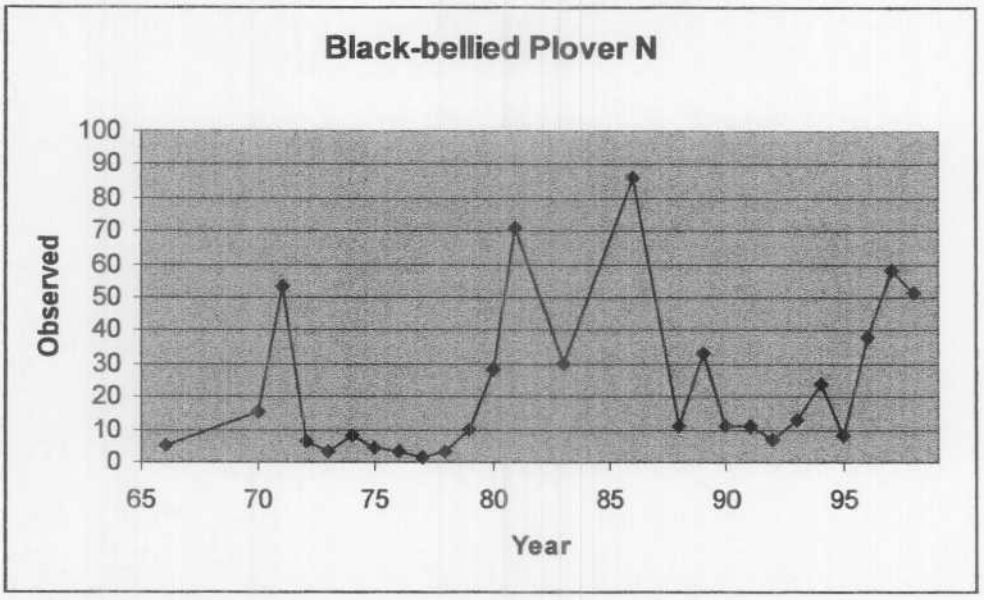
CHARADRIIDAE



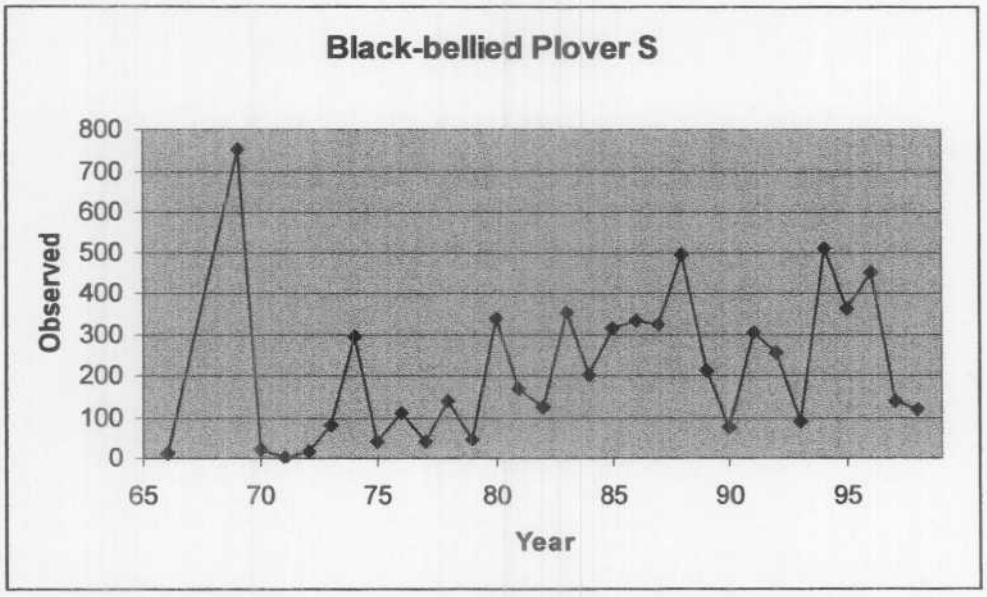
Mean 220 Standard Deviation 278



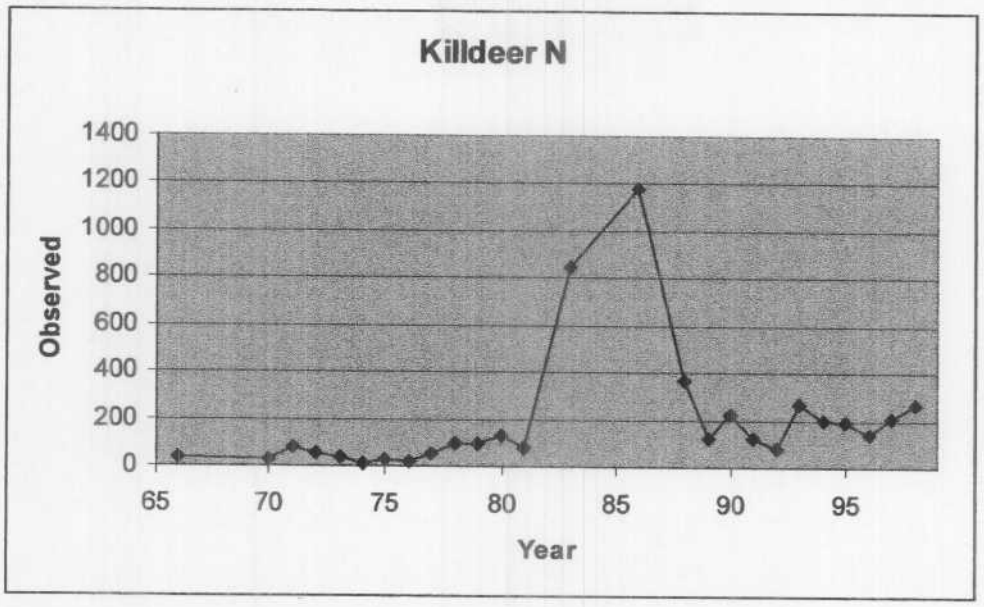
Mean 736 Standard Deviation 553



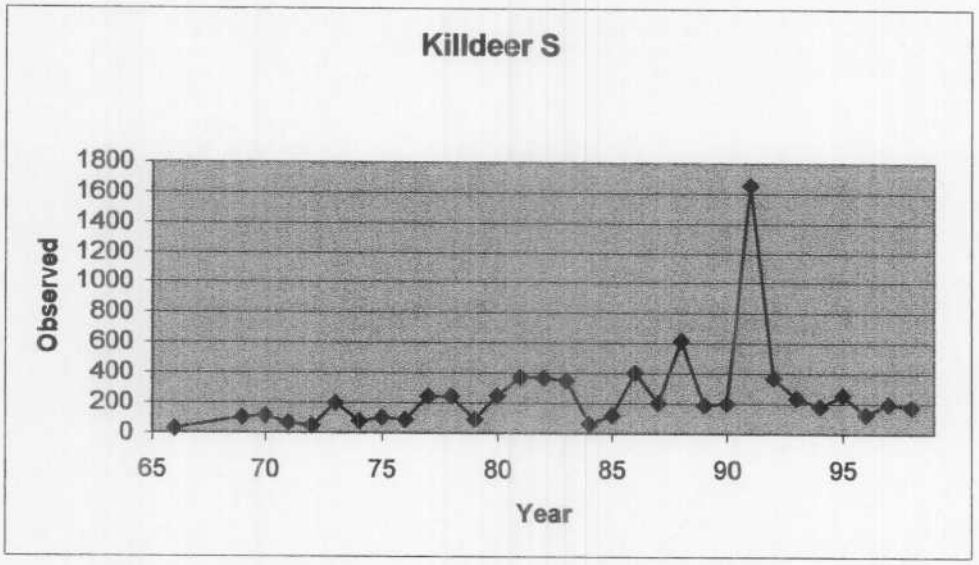
Mean 22 Standard Deviation 22



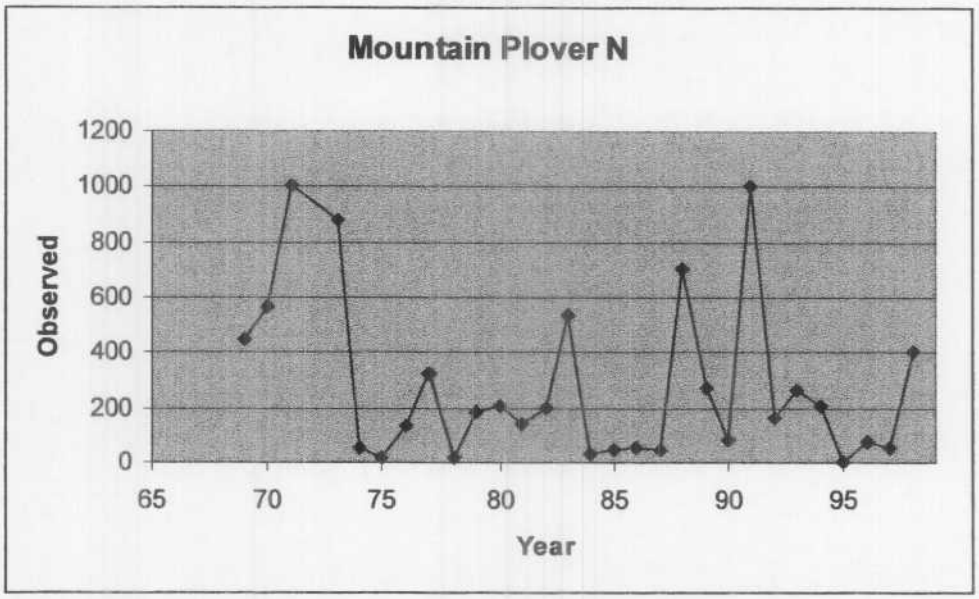
Mean 214 Standard Deviation 176



Mean 187 Standard Deviation 257

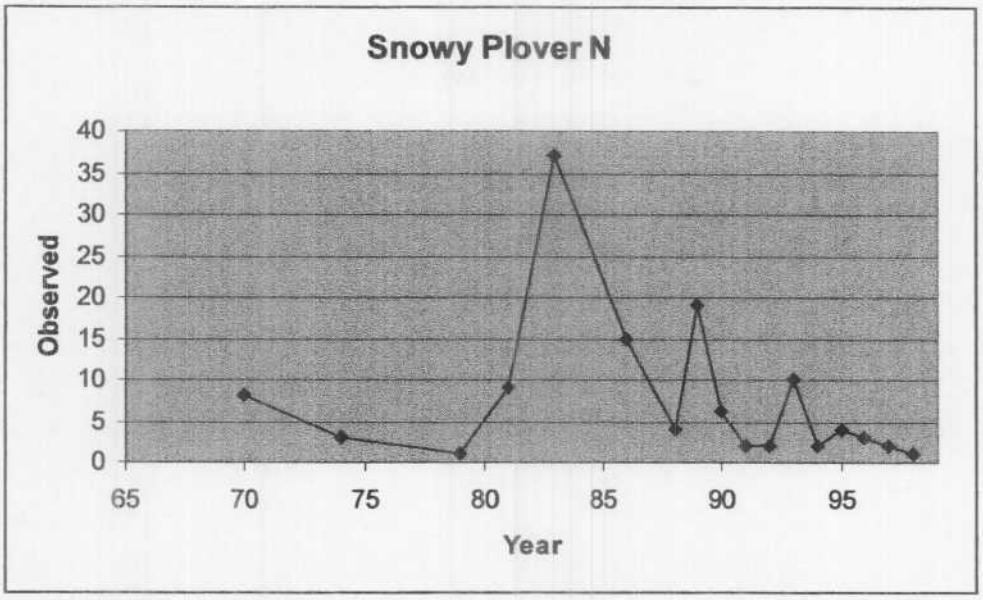


Mean 245 Standard Deviation 286

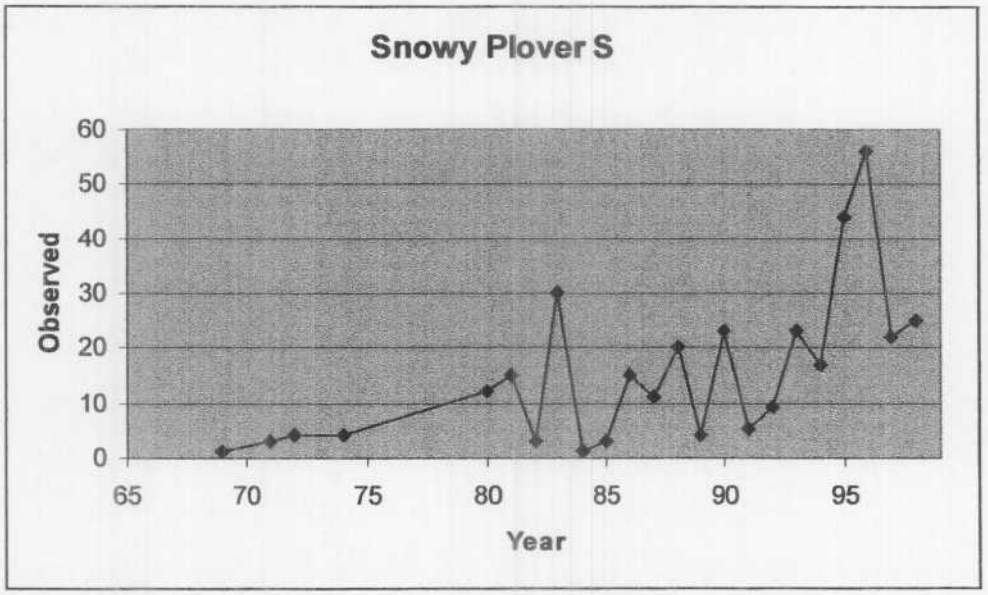


Mean 278

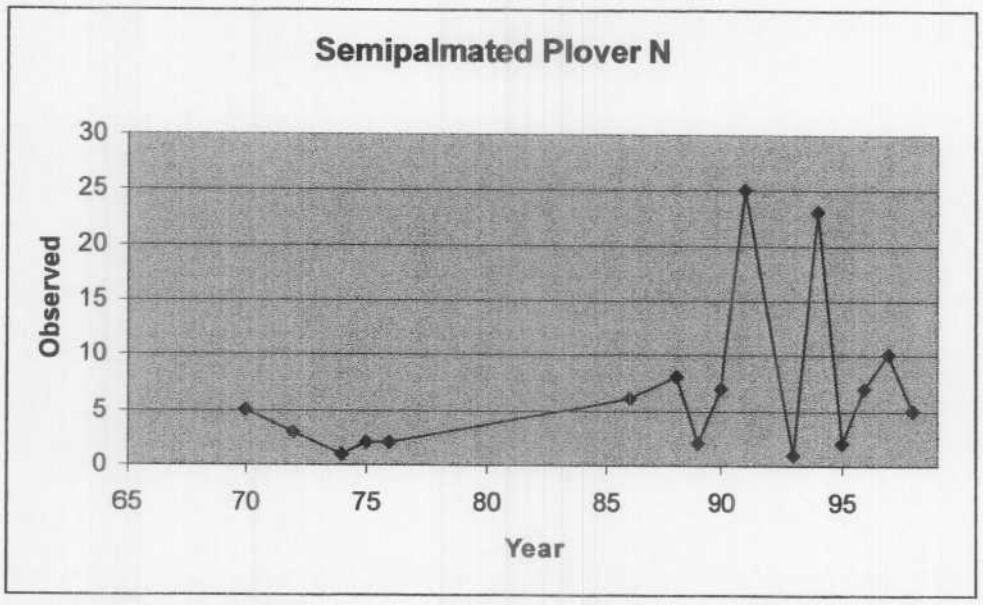
Standard Deviation 292



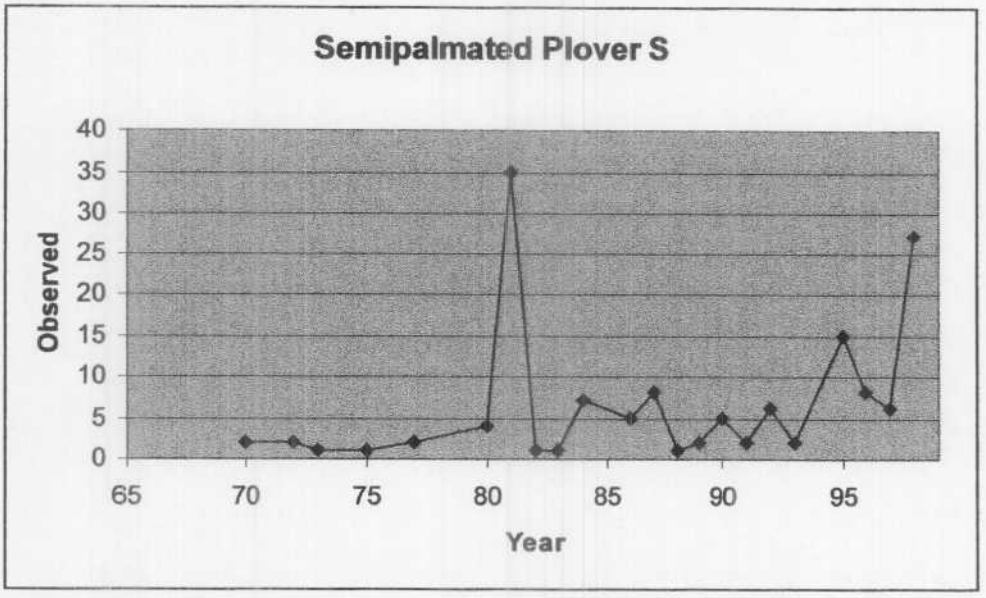
Mean 7 Standard Deviation 8



Mean 15 Standard Deviation 13

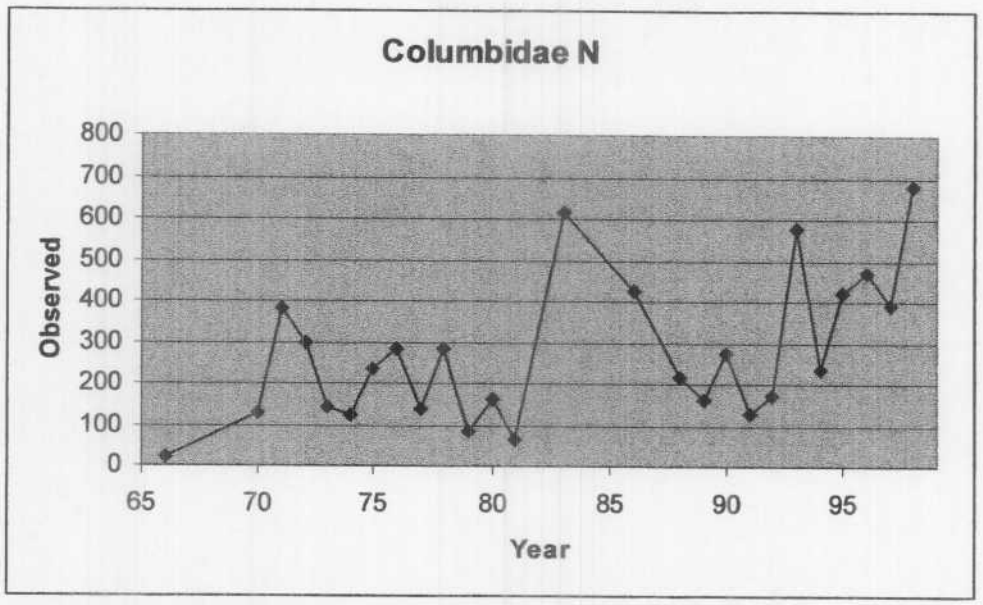


Mean 6 Standard Deviation 7

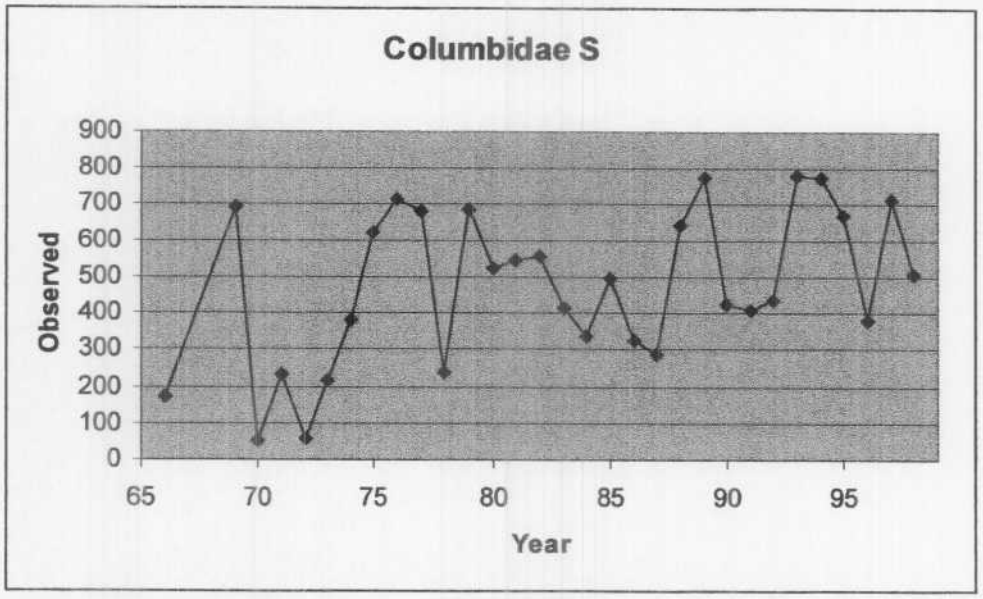


Mean 6 Standard Deviation 8

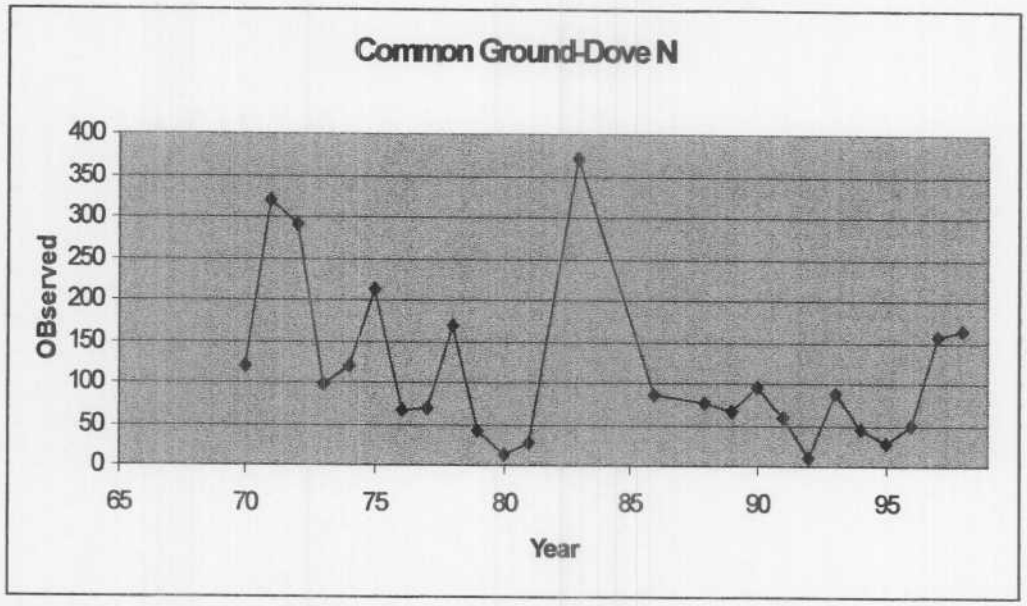
COLUMBIDAE



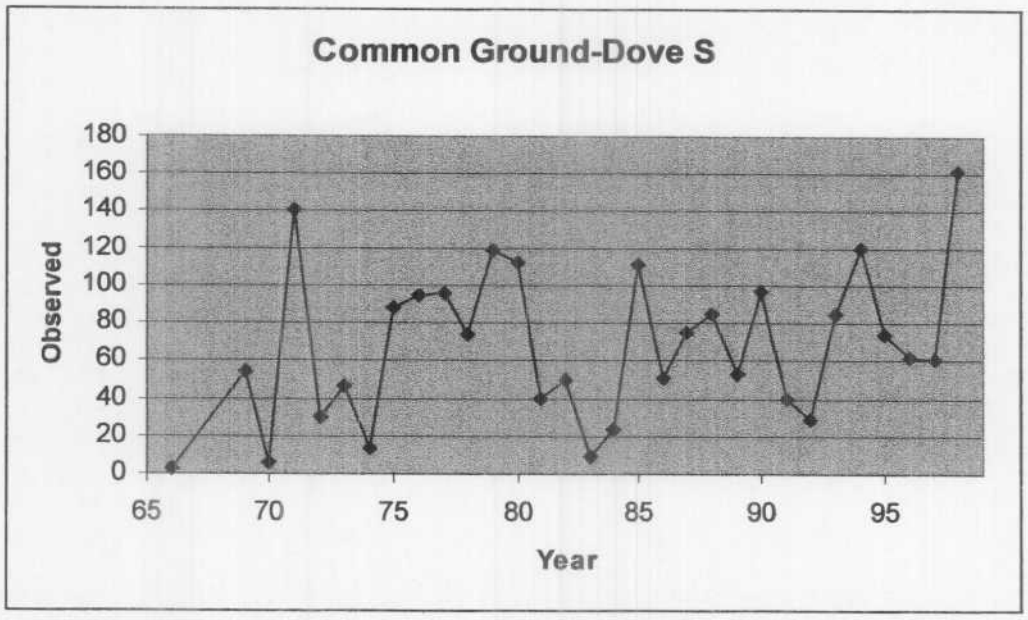
Mean 272 Standard Deviation 172



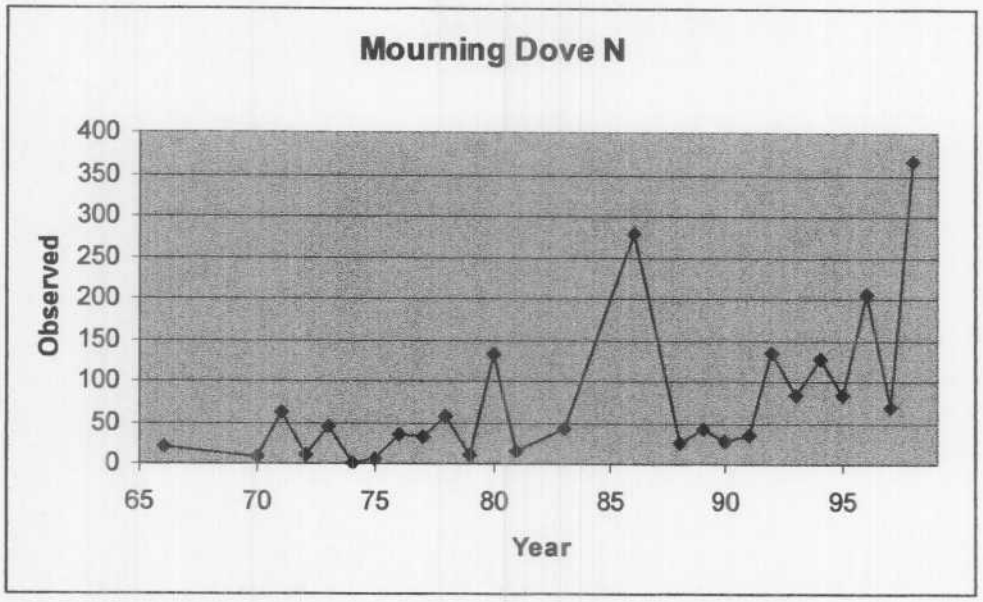
Mean 474 Standard Deviation 209



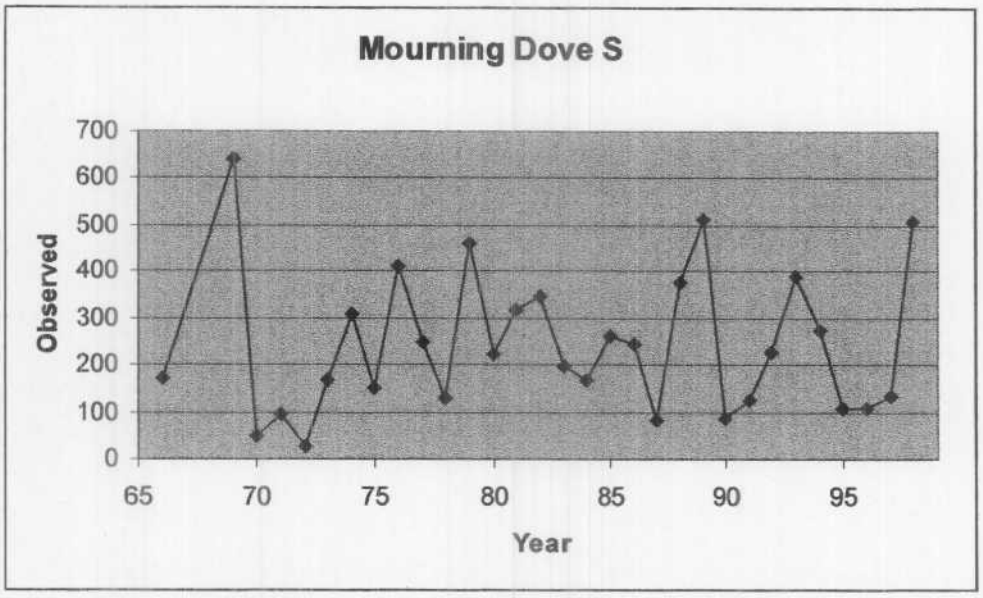
Mean 113 Standard Deviation 93



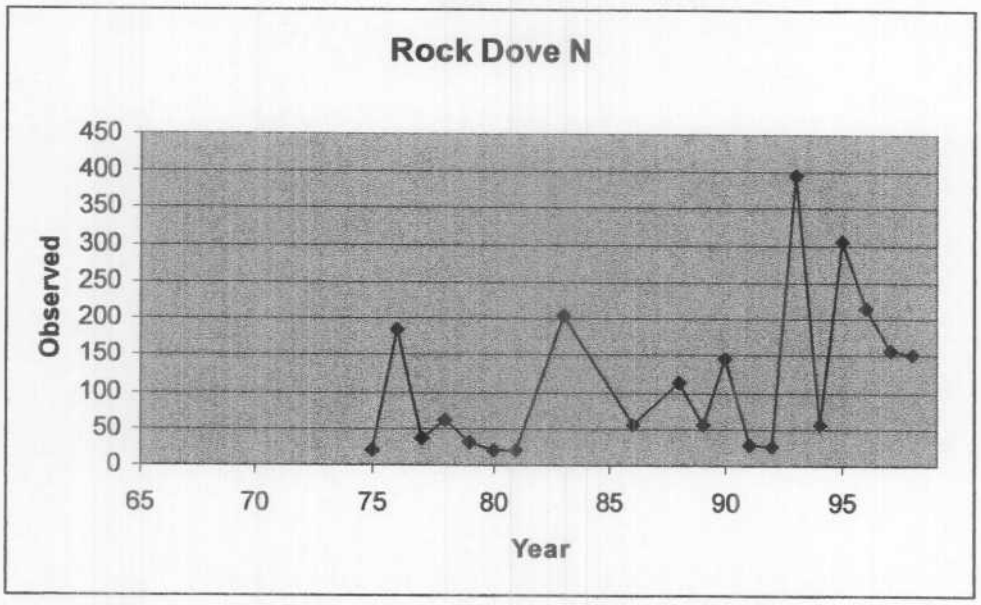
Mean 67 Standard Deviation 39



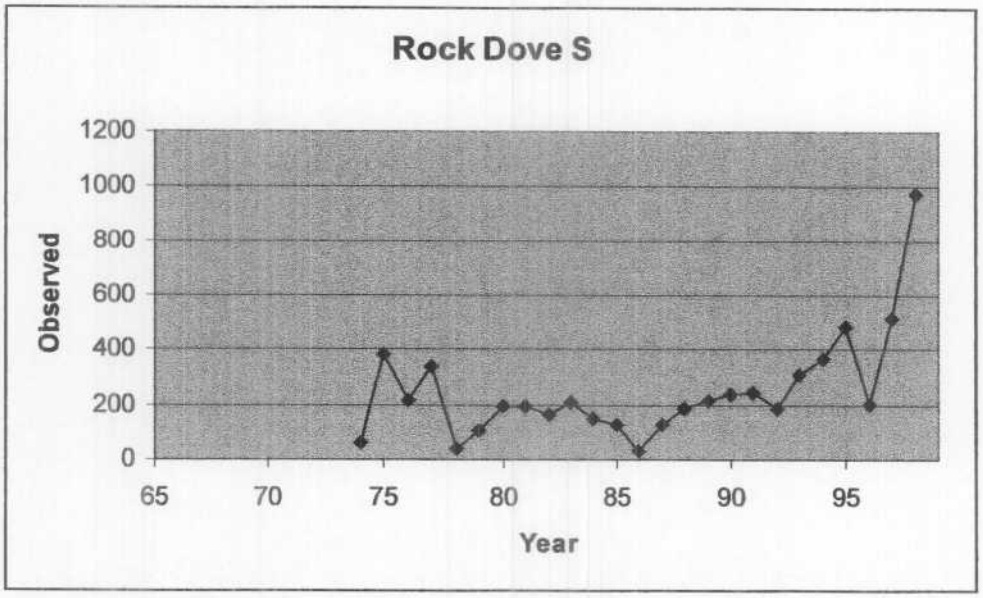
Mean 74 Standard Deviation 86



Mean 242 Standard Deviation 150

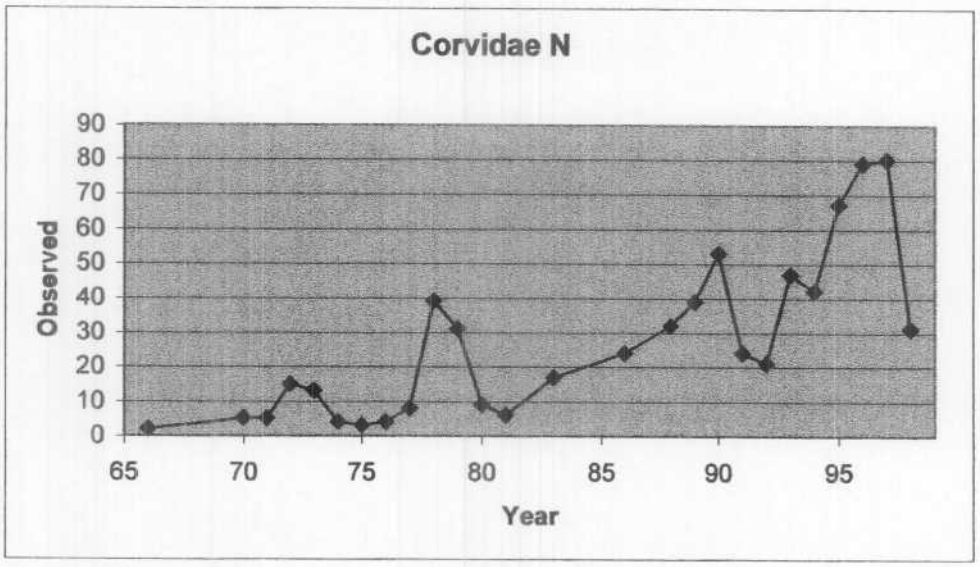


Mean 113 Standard Deviation 102

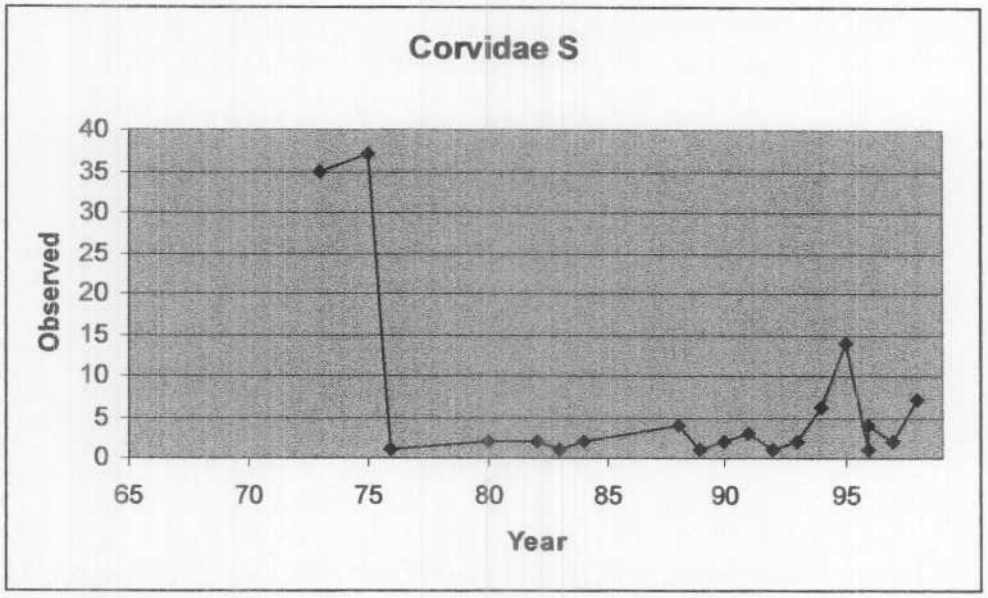


Mean 247 Standard Deviation 247

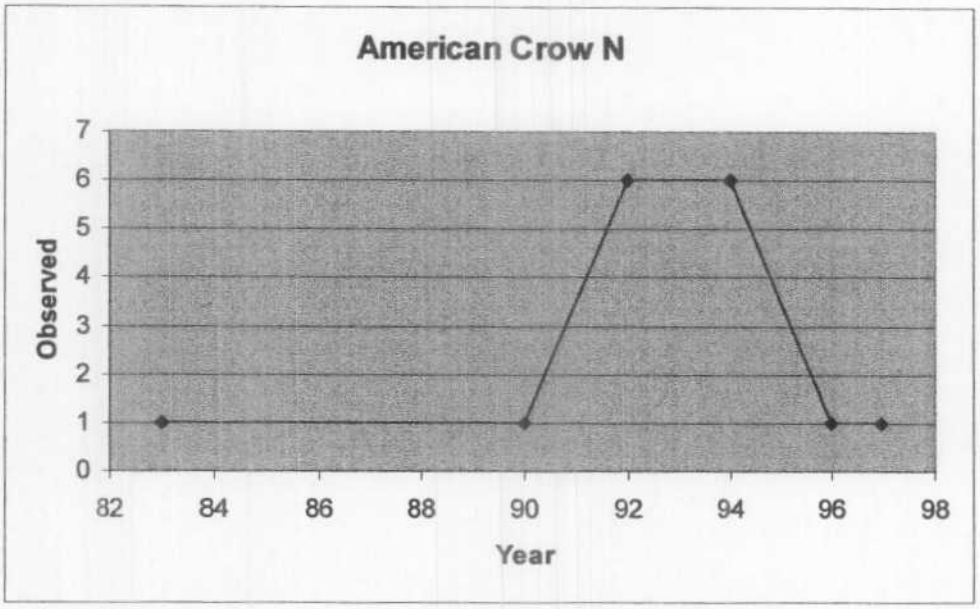
CORVIDAE



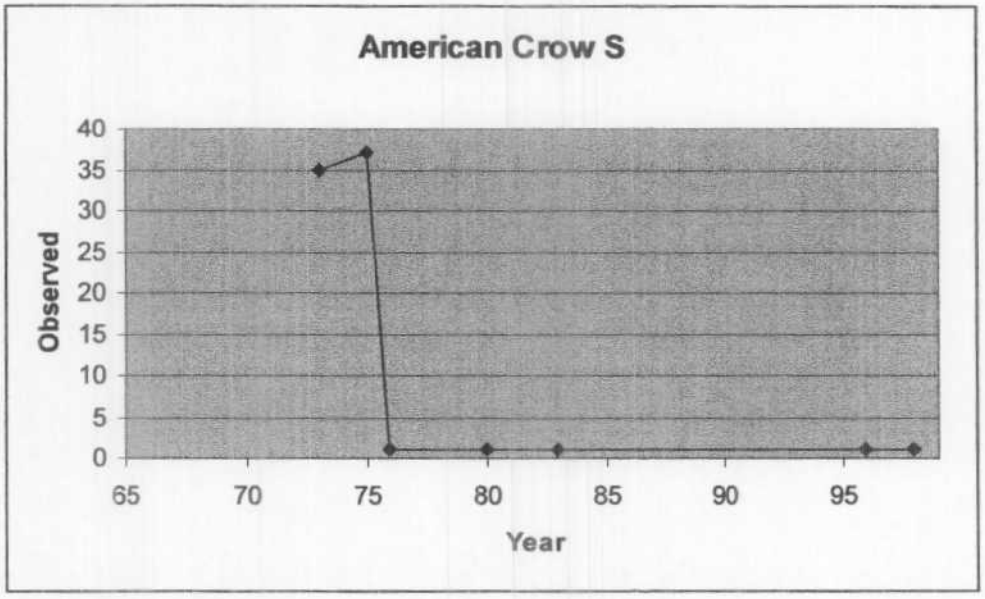
Mean 26 Standard Deviation 22



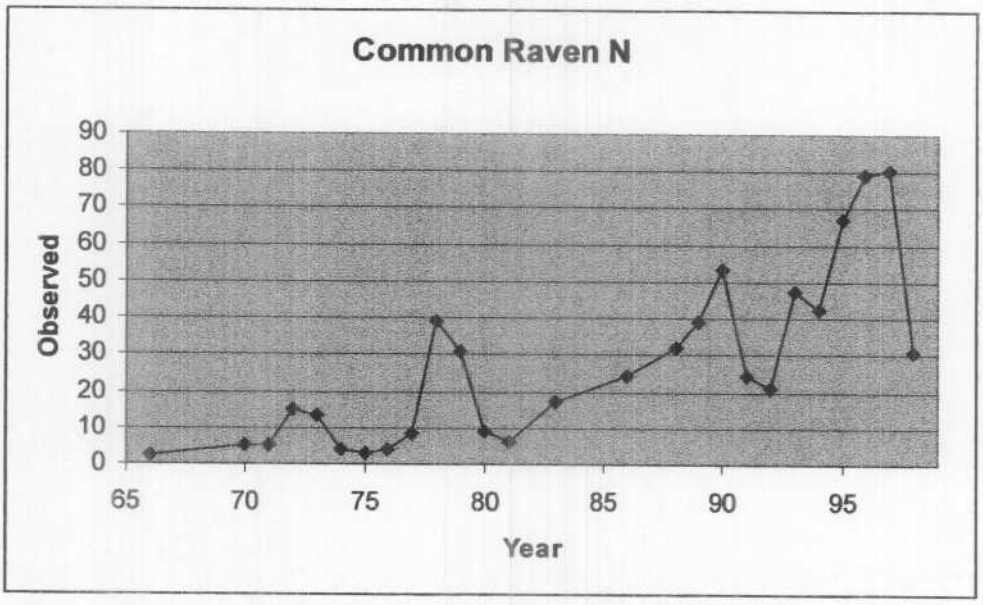
Mean 6 Standard Deviation 10



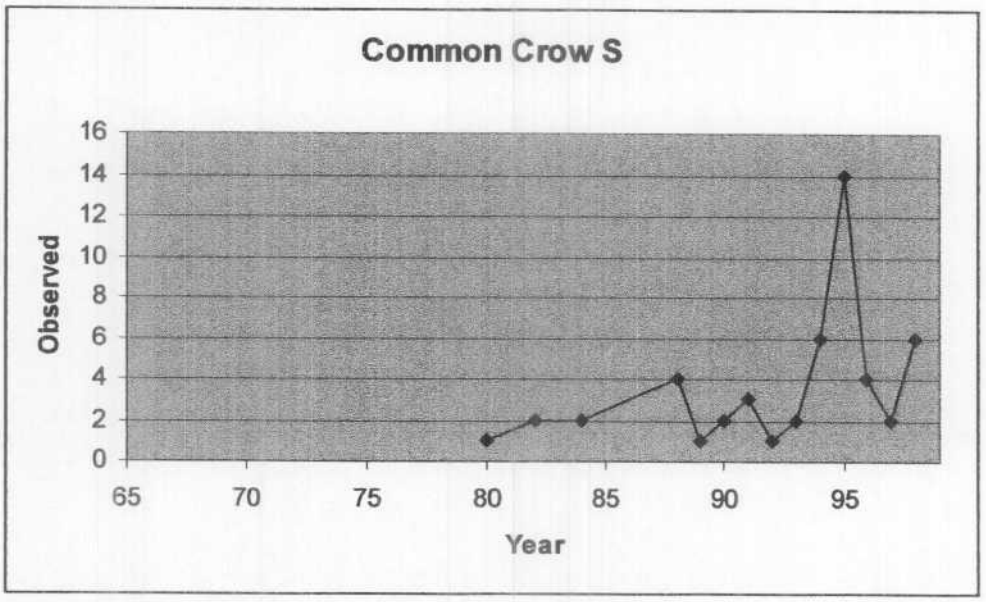
Mean 2 Standard Deviation 2



Mean 6 Standard Deviation 11

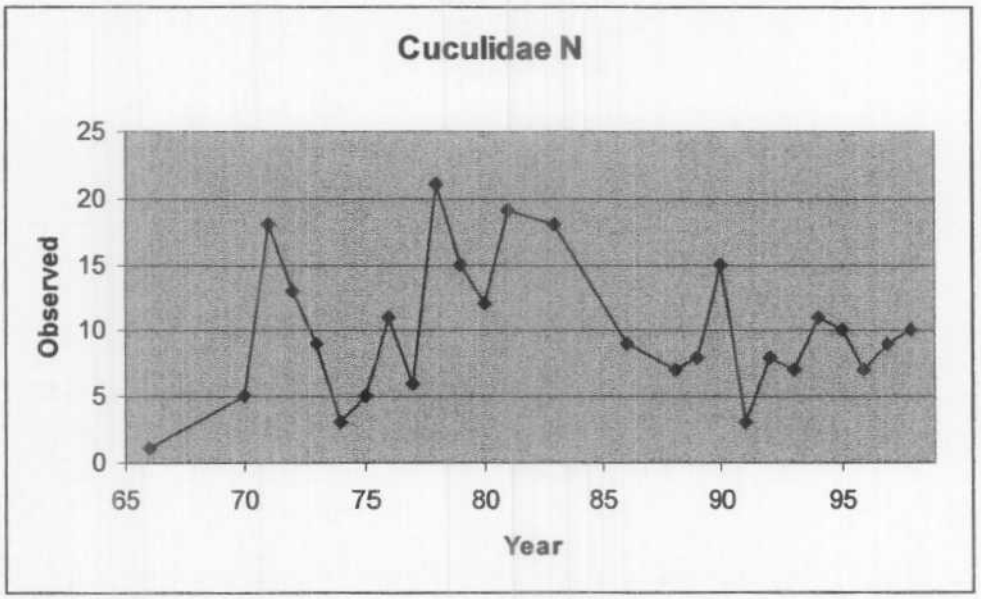


Mean 26 Standard Deviation 22

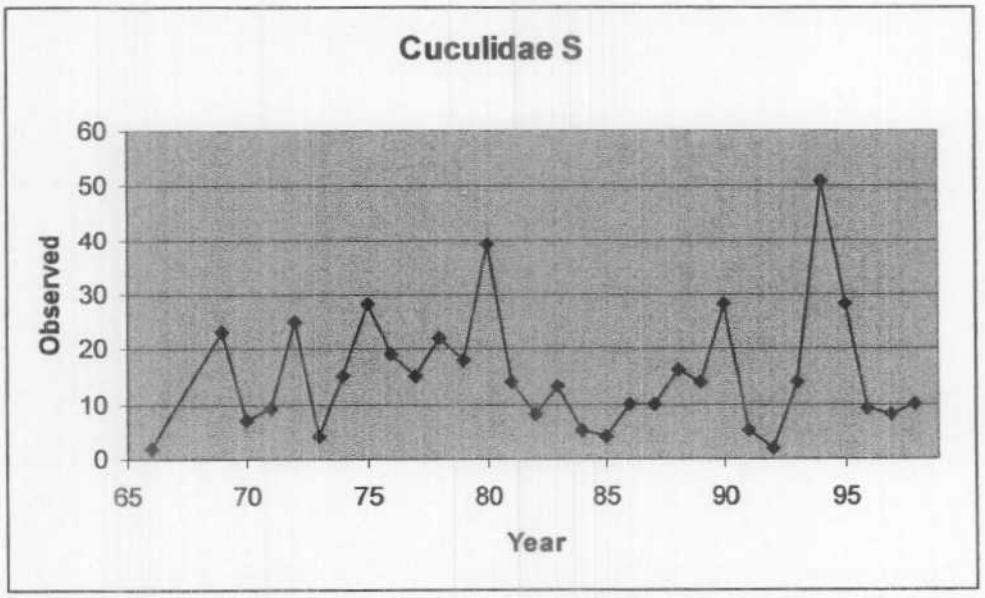


Mean 3 Standard Deviation 3

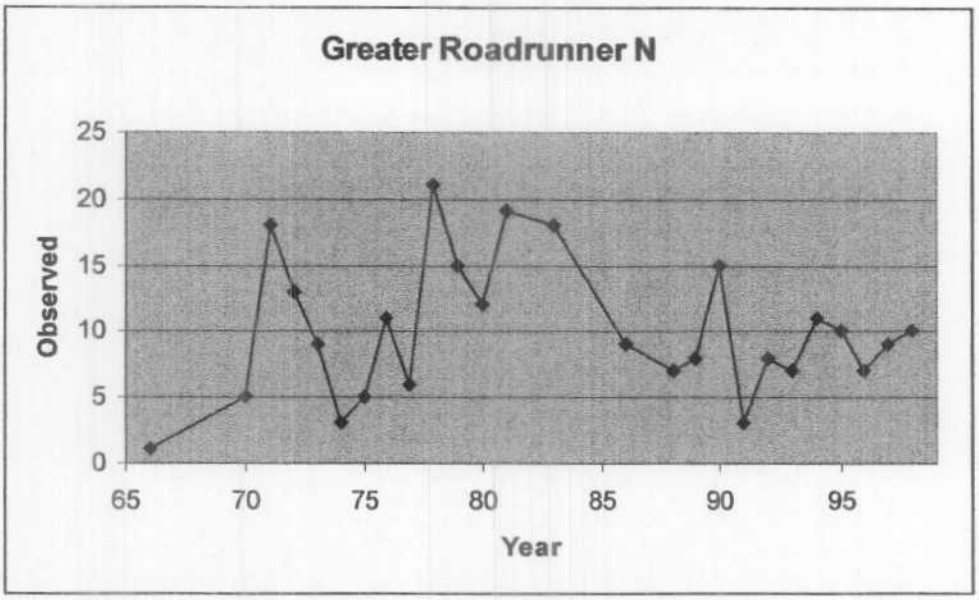
CUCULIDAE



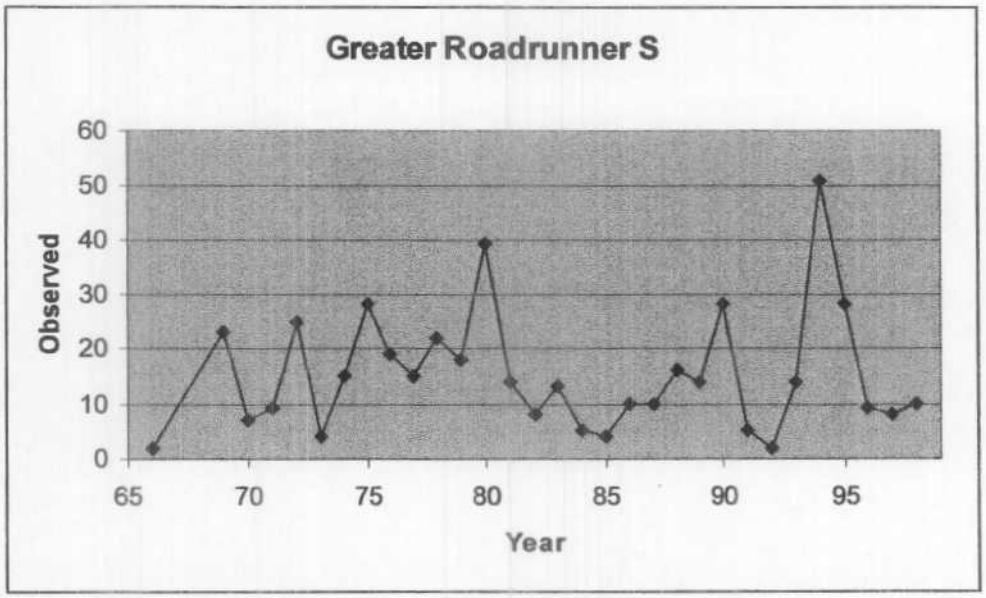
Mean 10 Standard Deviation 5



Mean 15 Standard Deviation 10

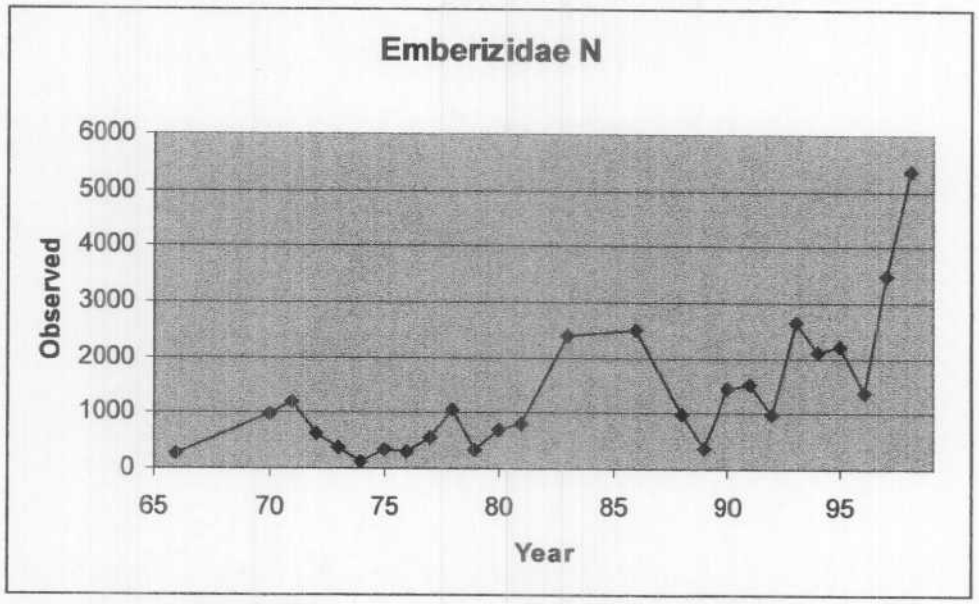


Mean 10 Standard Deviation 5

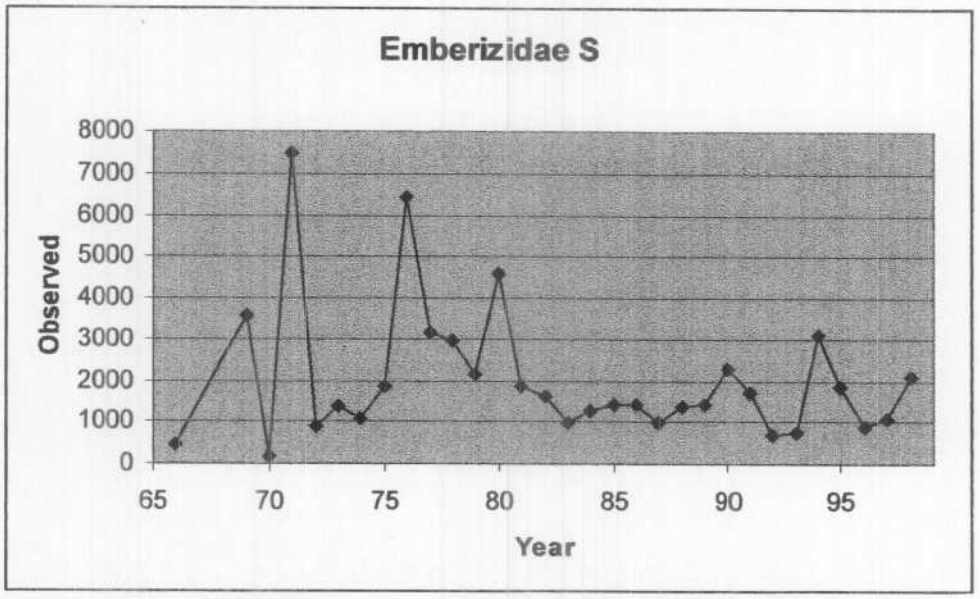


Mean 15 Standard Deviation 10

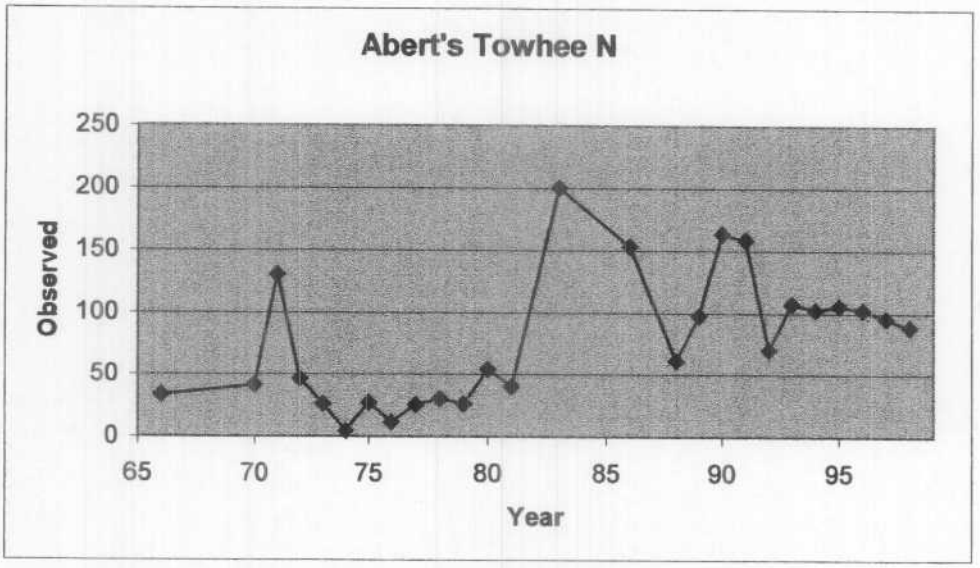
EMBERIZIDAE



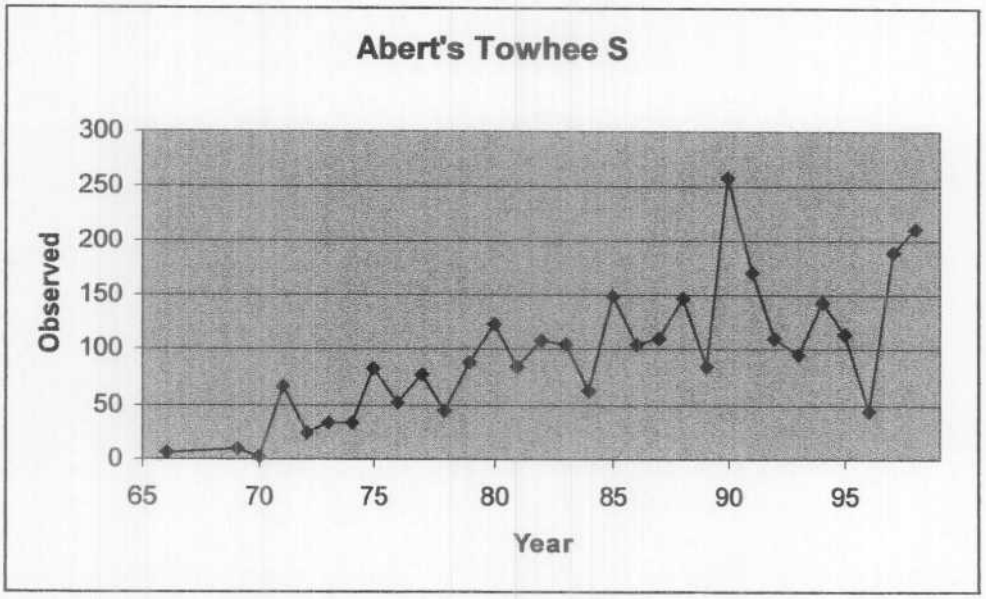
Mean1388 Standard Deviation 1183



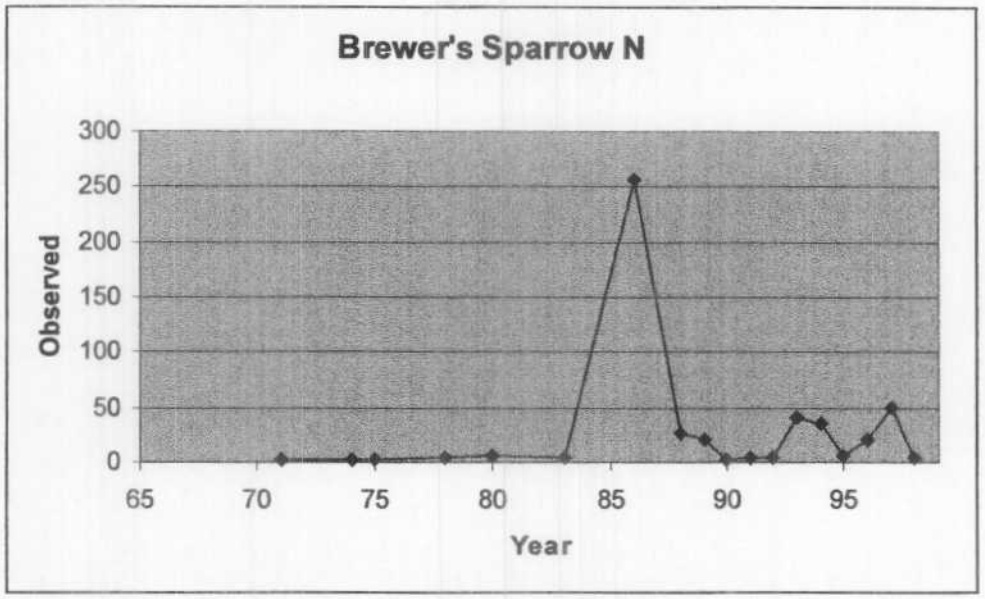
Mean 1688 Standard Deviation 1446



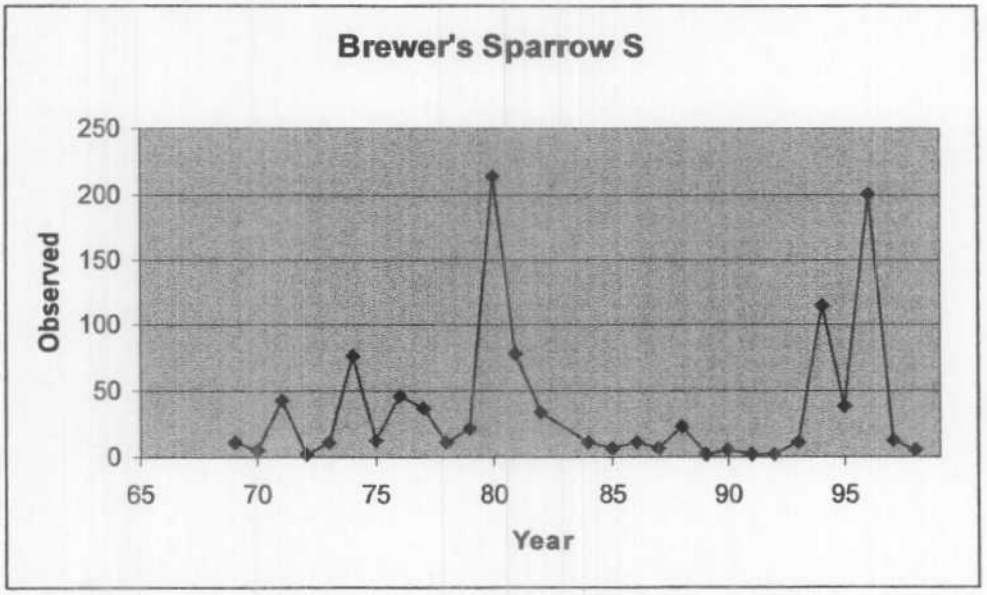
Mean 76 Standard Deviation 51



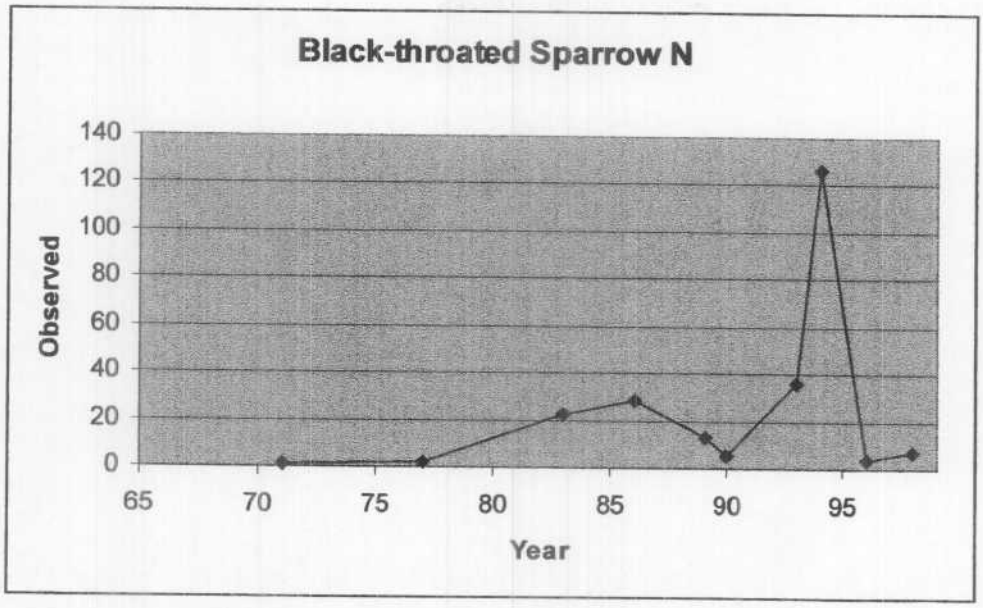
Mean 94 Standard Deviation 59



Mean 26 Standard Deviation 57

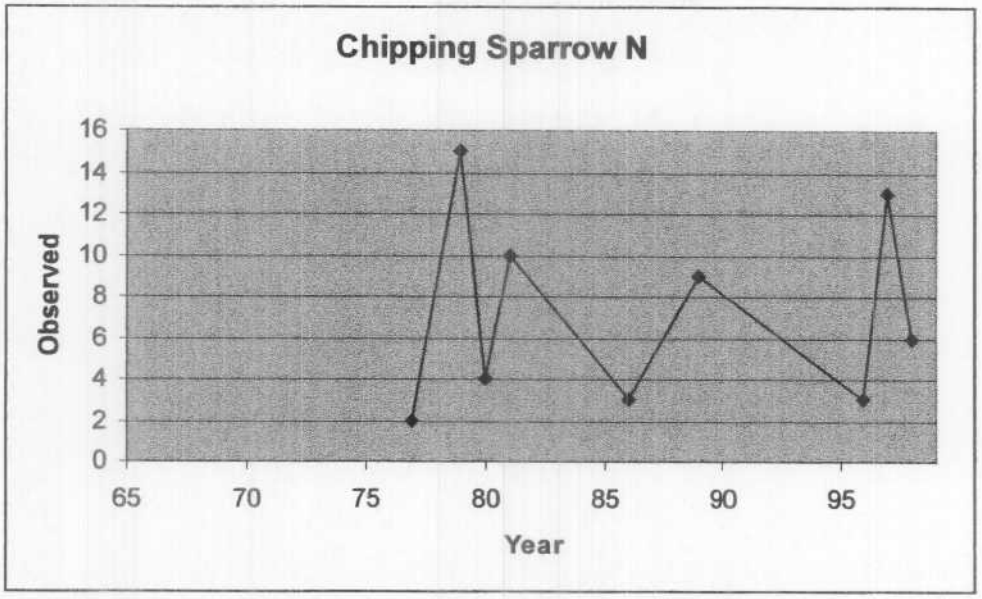


Mean 35 Standard Deviation 53

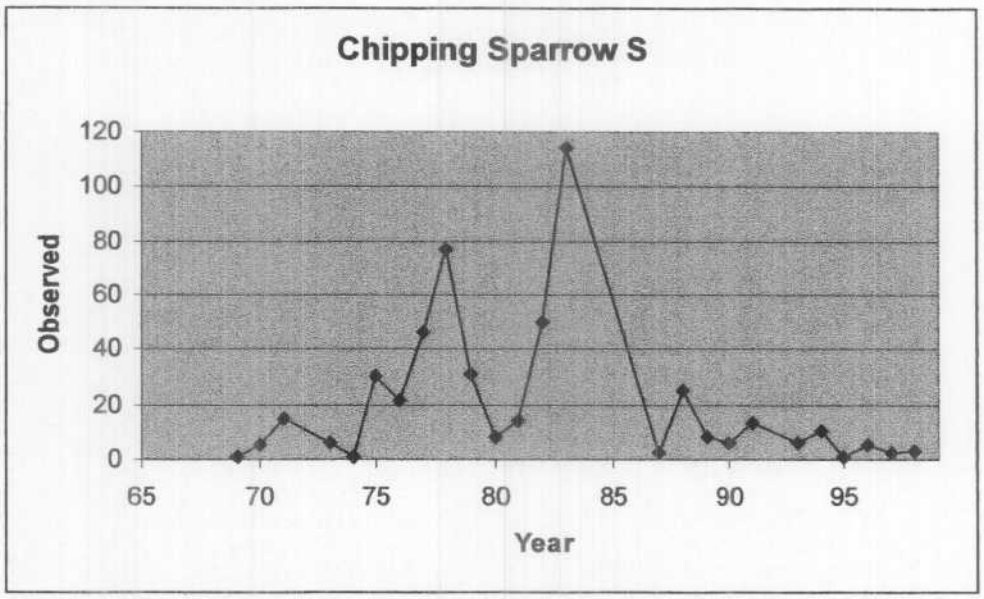


Mean 24

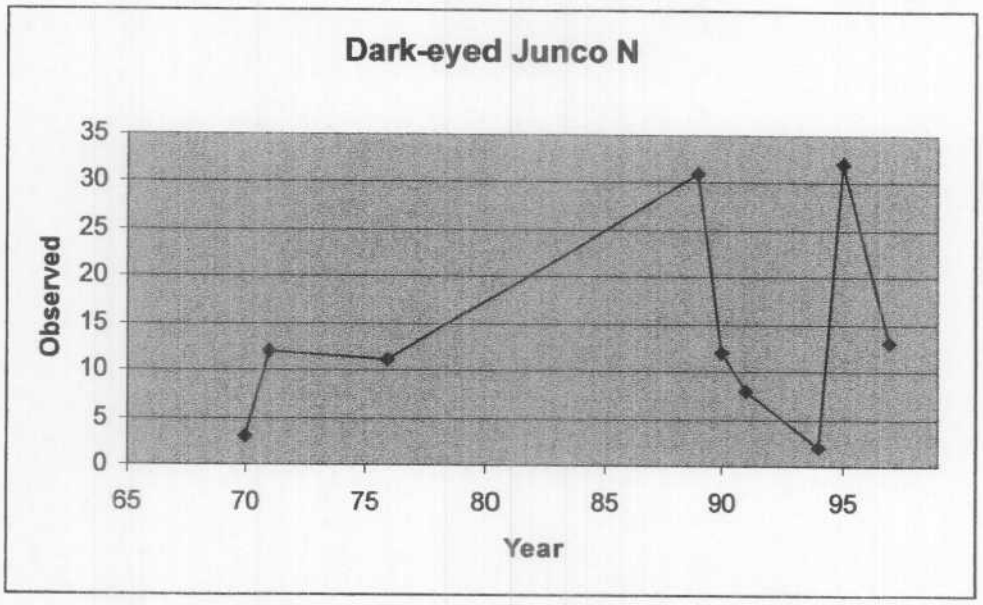
Standard Deviation 35



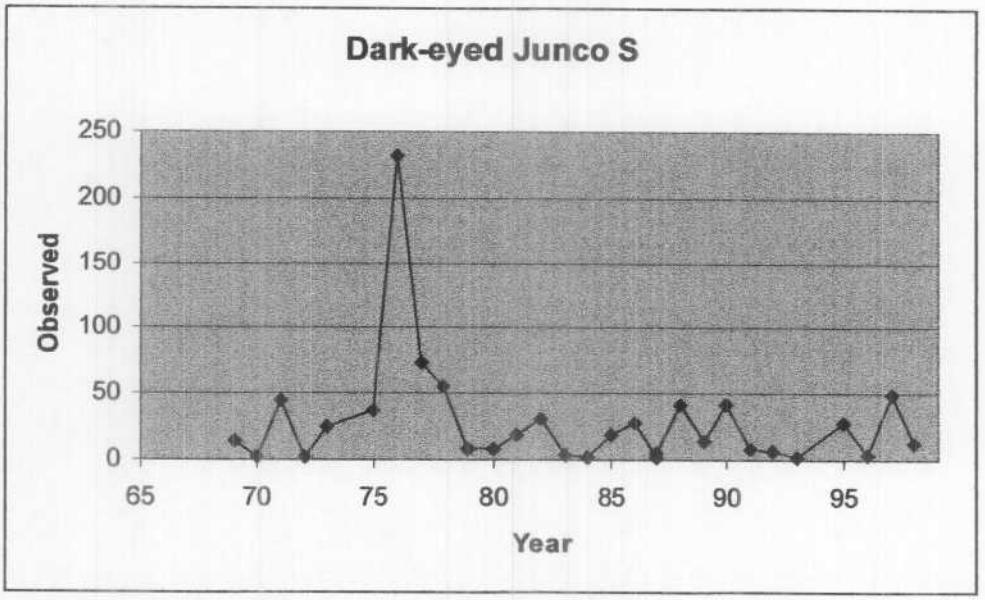
Mean 7 Standard Deviation 4



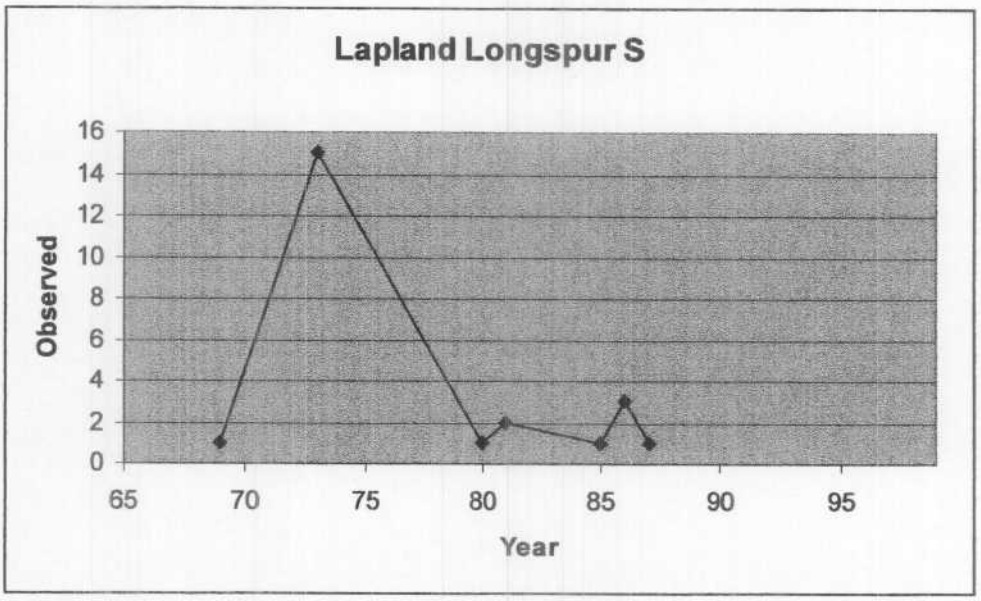
Mean 20 Standard Deviation 26



Mean 13 Standard Deviation 10

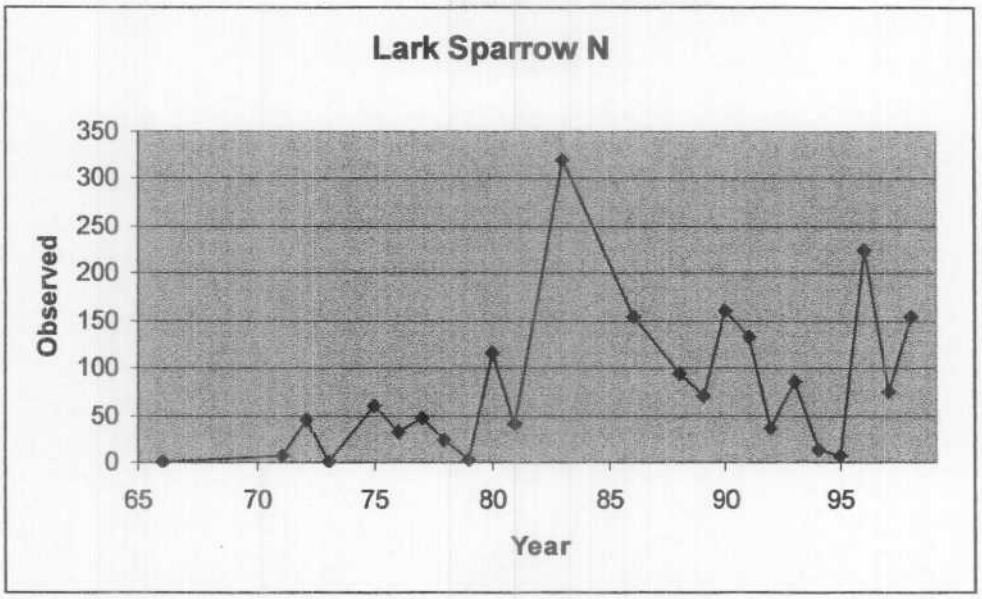


Mean 27 Standard Deviation 42

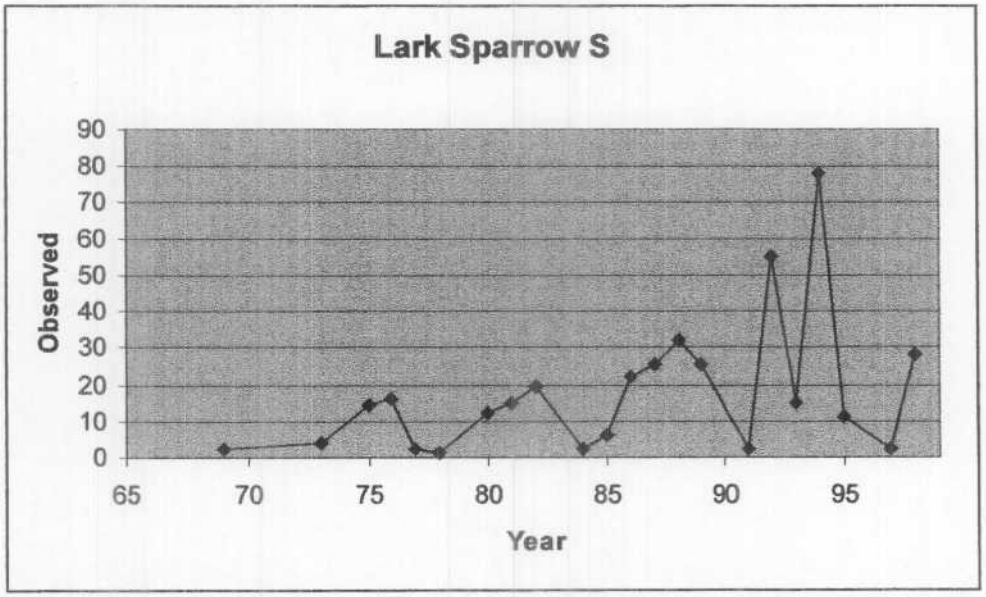


Mean 3

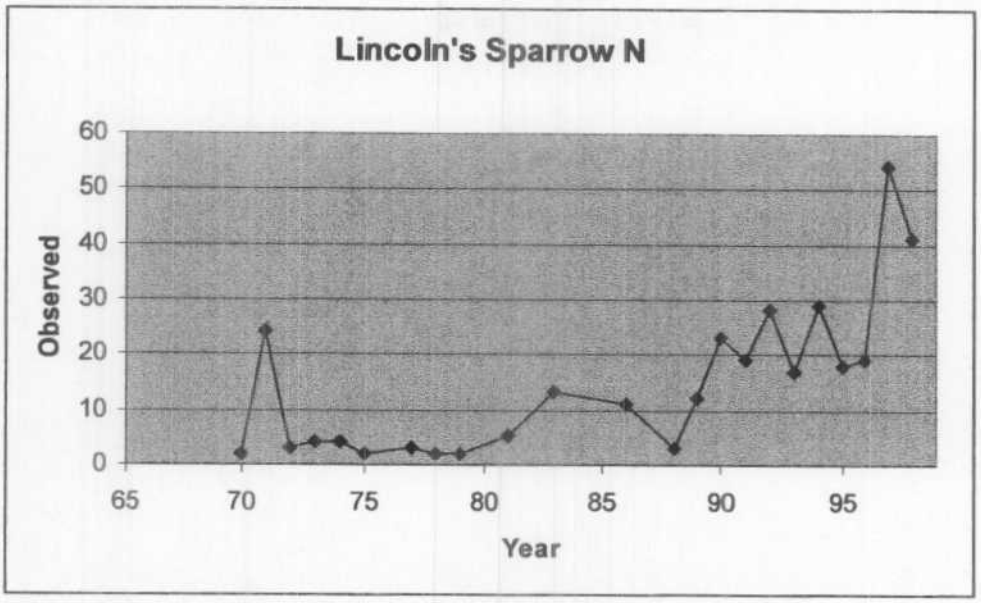
Standard Deviation 4



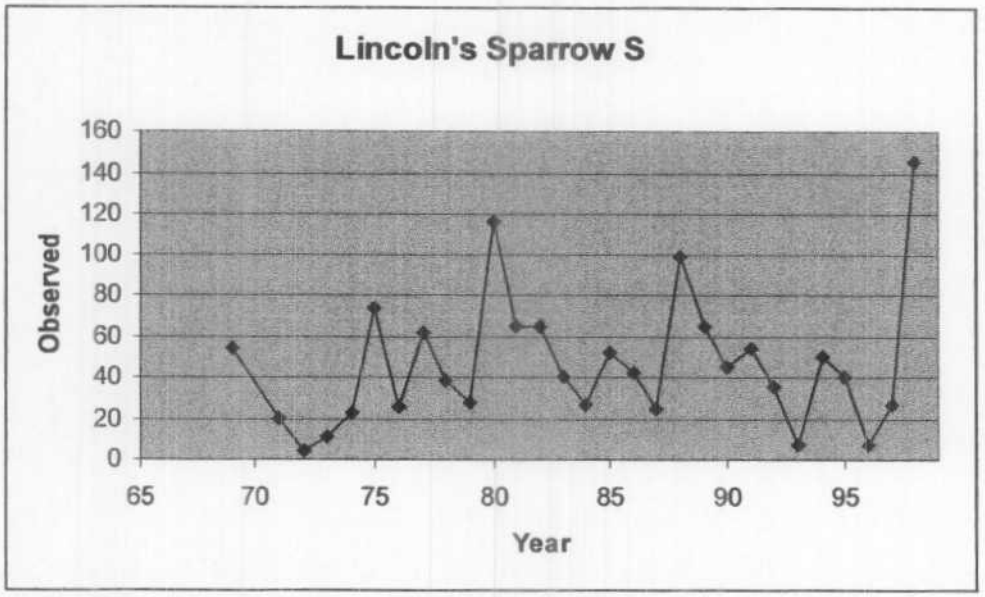
Mean 79 Standard Deviation 77



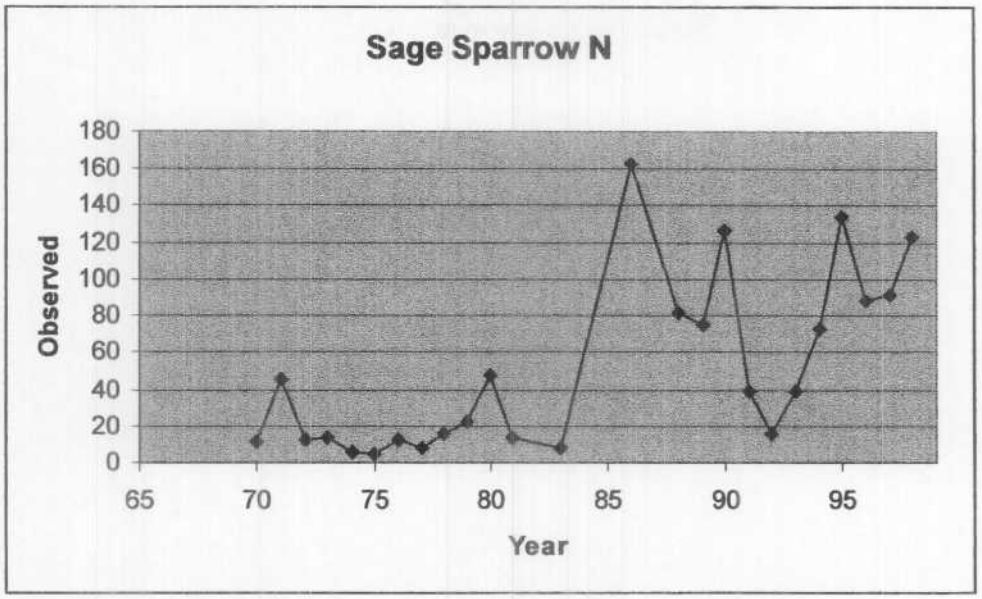
Mean 17 Standard Deviation 18



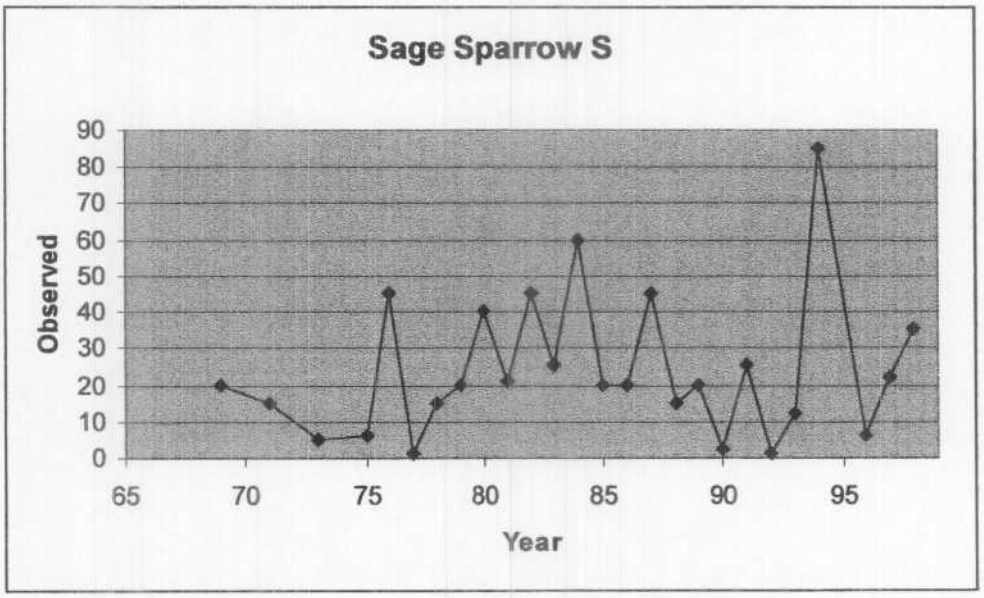
Mean 14 Standard Deviation 13



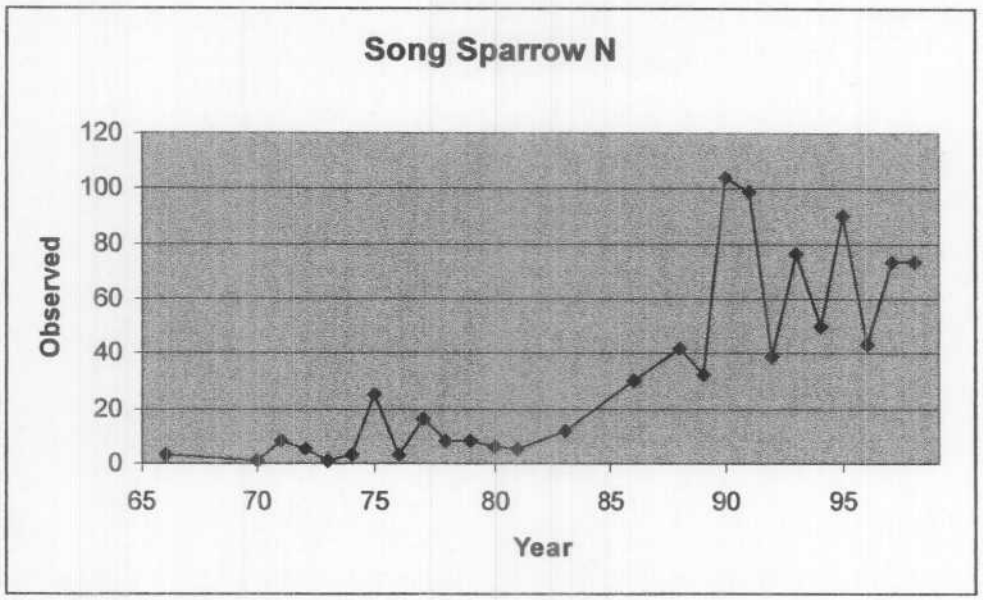
Mean 46 Standard Deviation 31



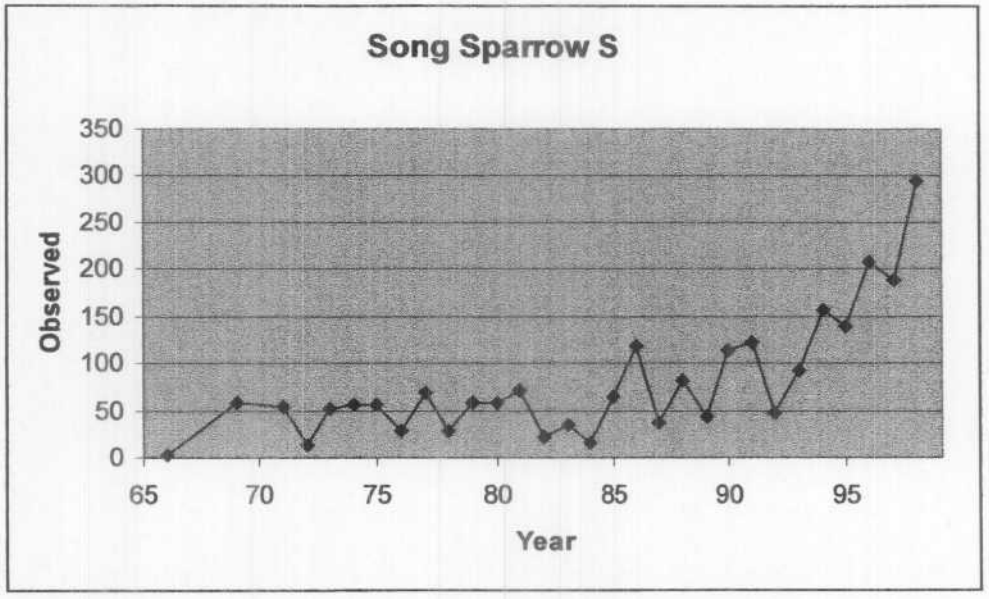
Mean 50 Standard Deviation 46



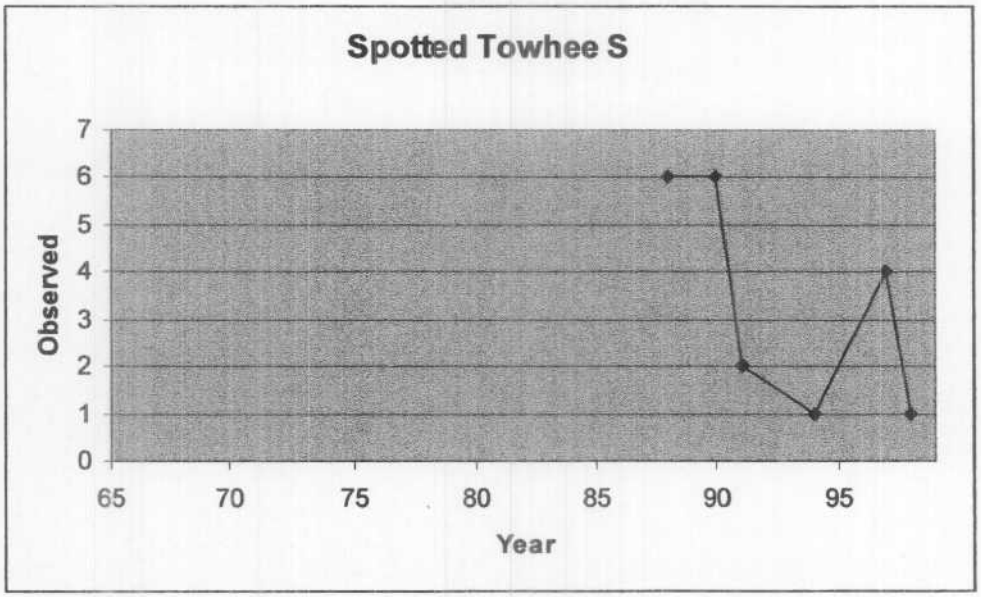
Mean 24 Standard Deviation 19



Mean 32 Standard Deviation 32

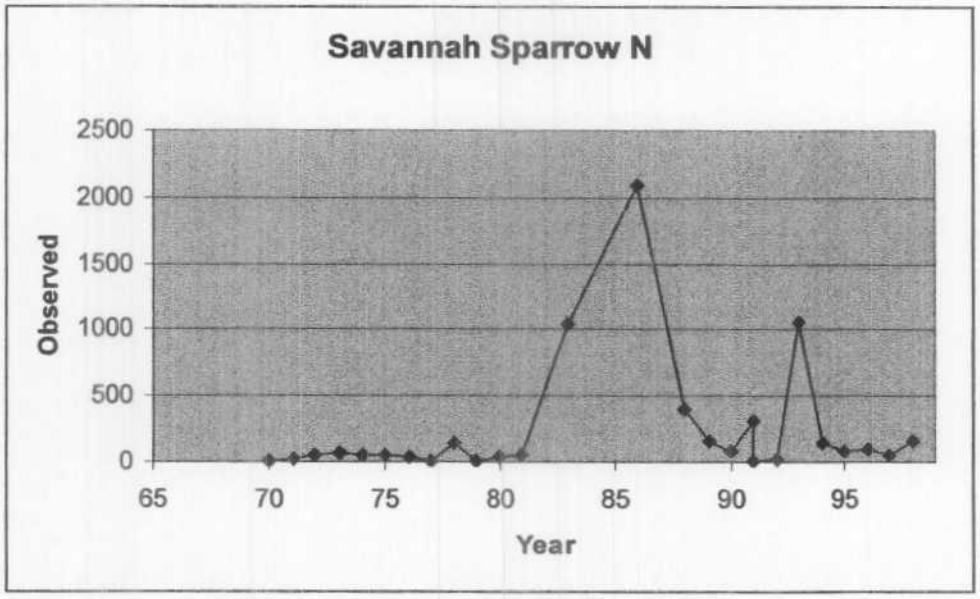


Mean 78 Standard Deviation 63

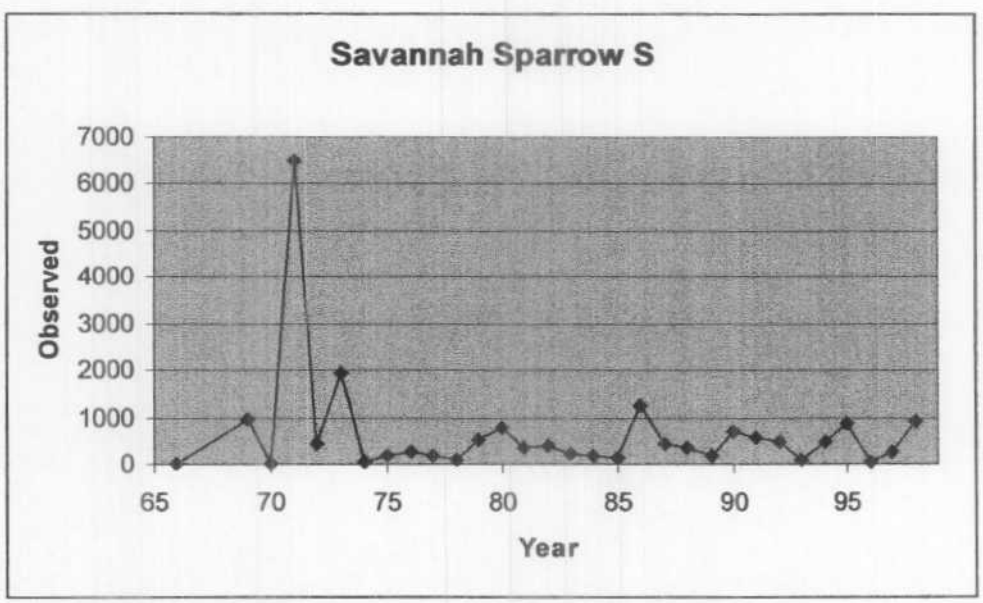


Mean 3

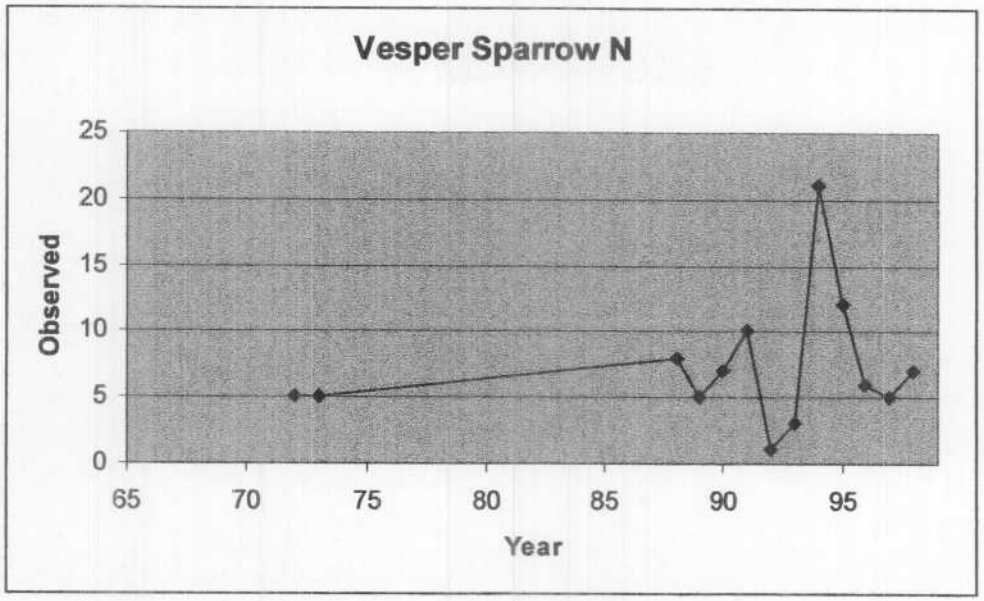
Standard Deviation 2



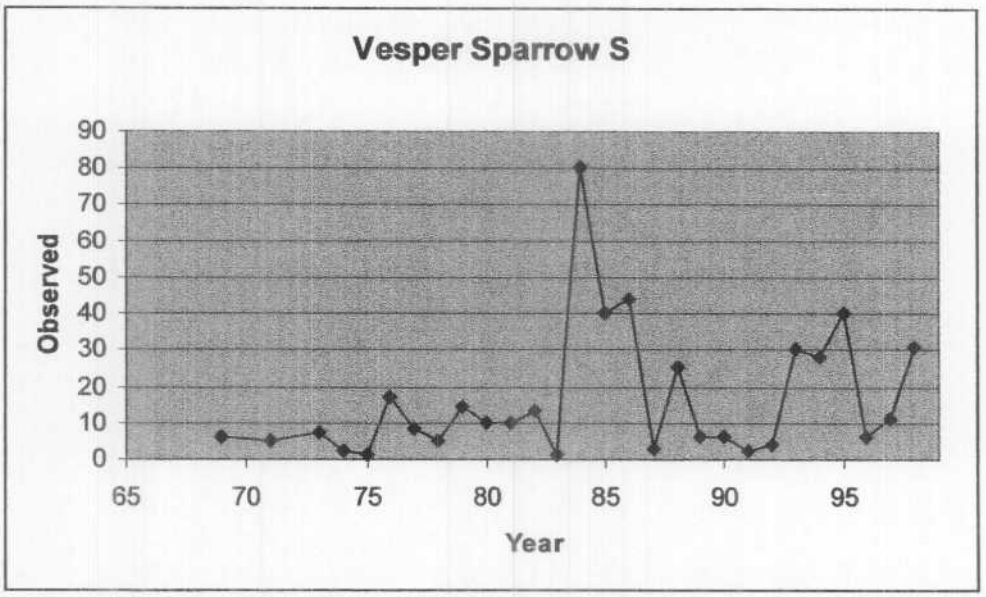
Mean 231 Stabdard Deviation 457



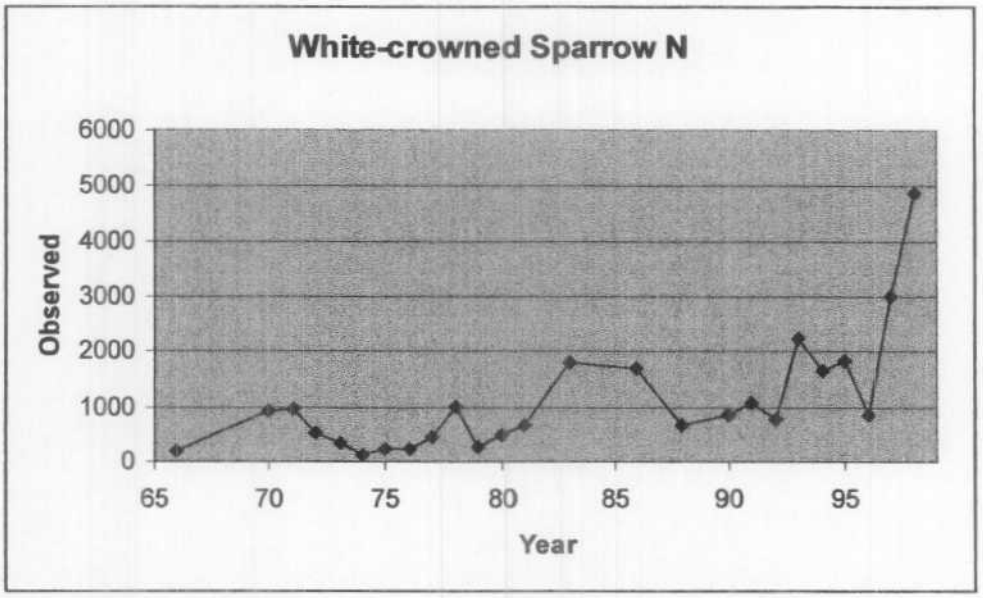
Mean 629 Standard Deviation 1147



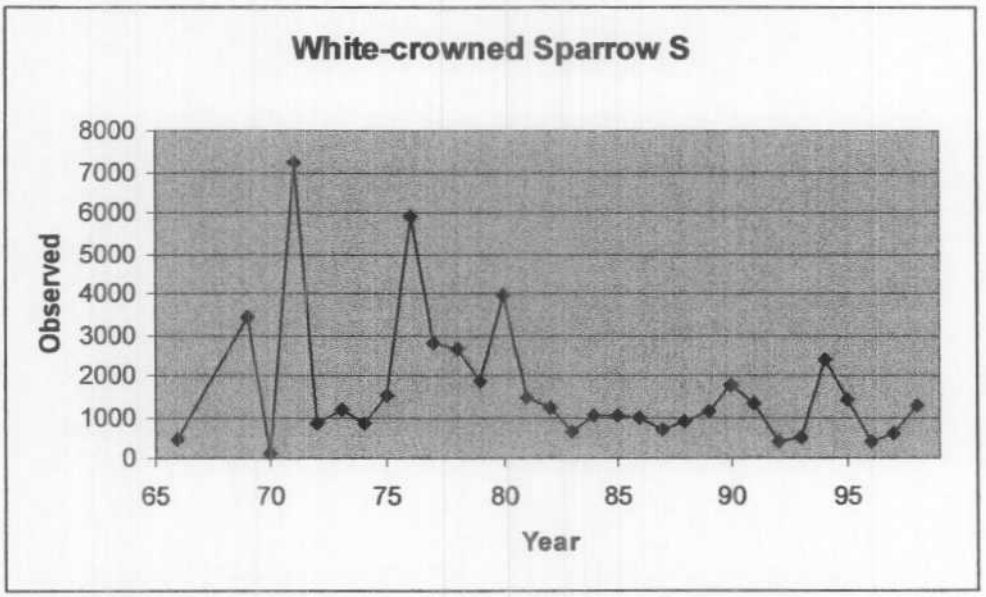
Mean 7 Standard Deviation 4



Mean 16 Standard Deviation 17

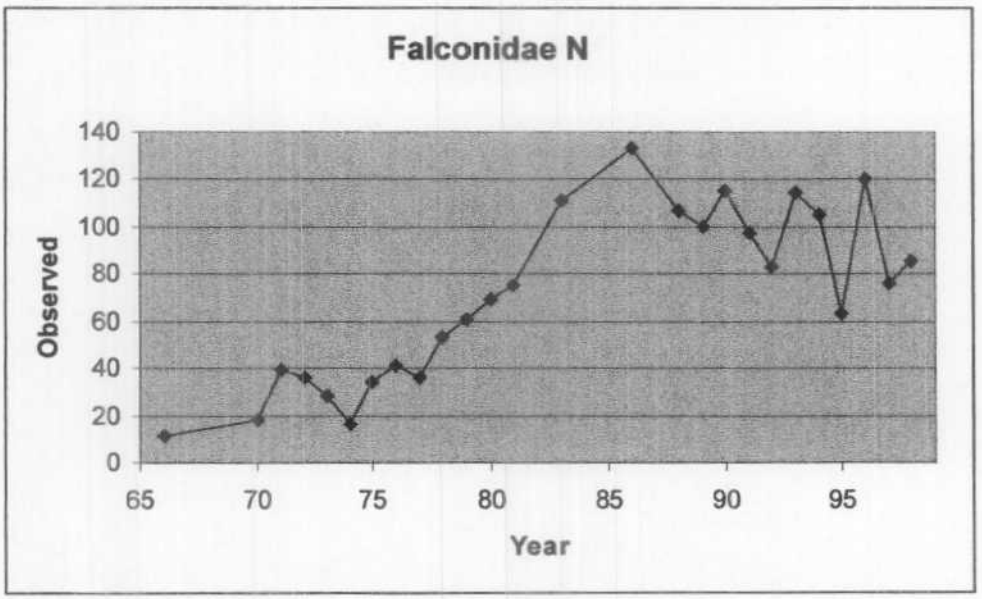


Mean 1098 Standard Deviation 1045

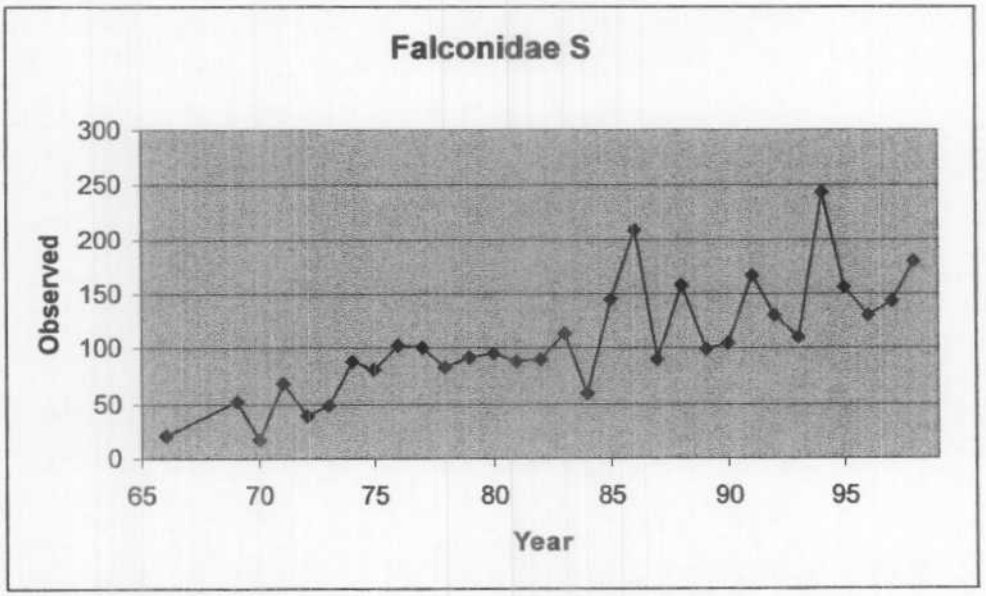


Mean 1667 Standard Deviation 1566

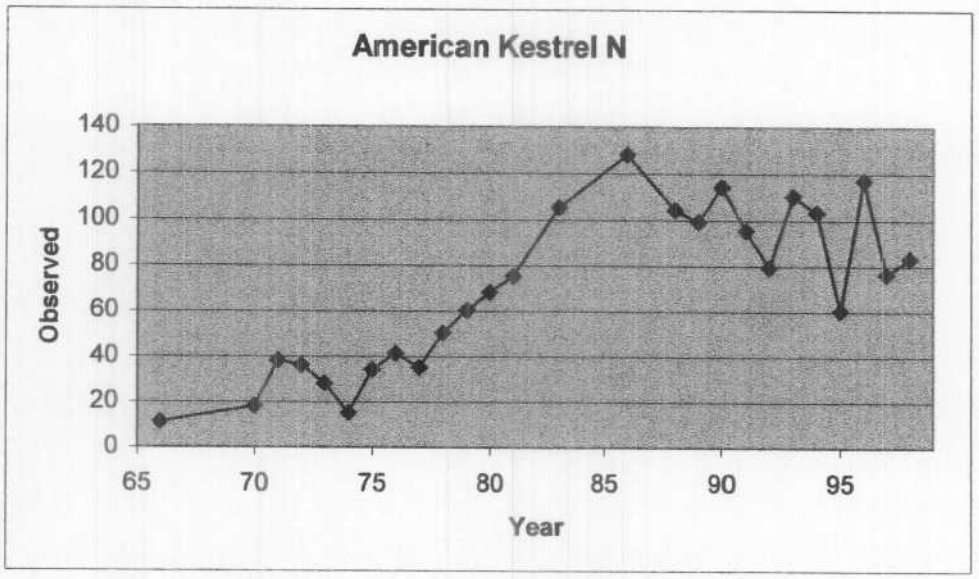
FALCONIDAE



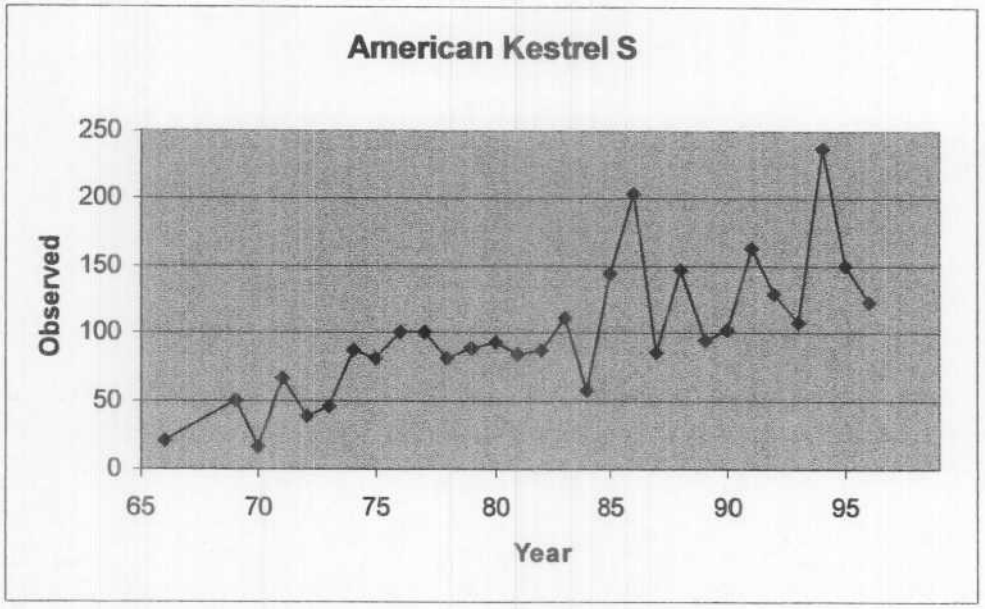
Mean 67 Standard Deviation 37



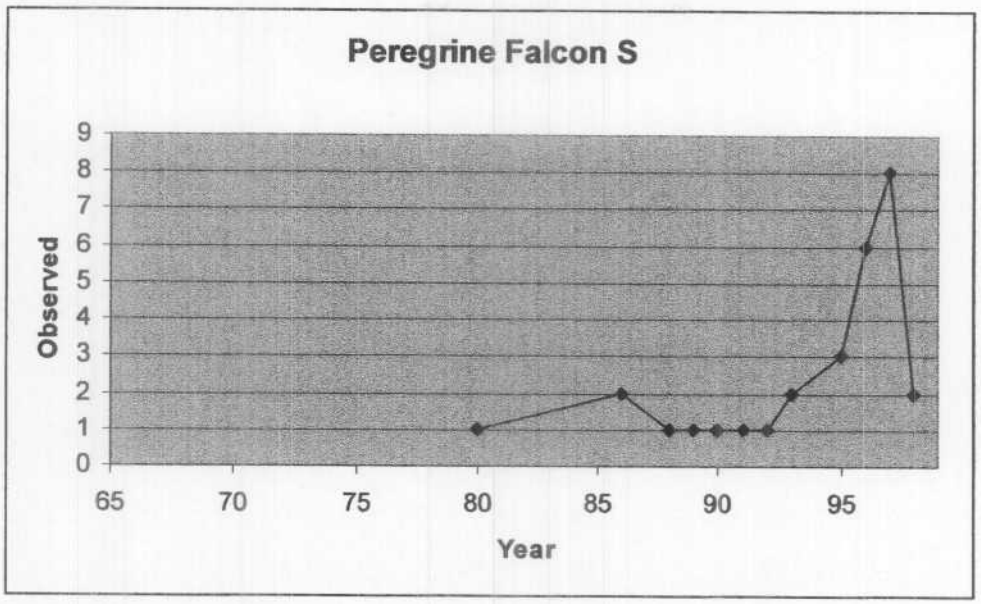
Mean 106 Standard Deviation



Mean 68 Standard Deviation 34

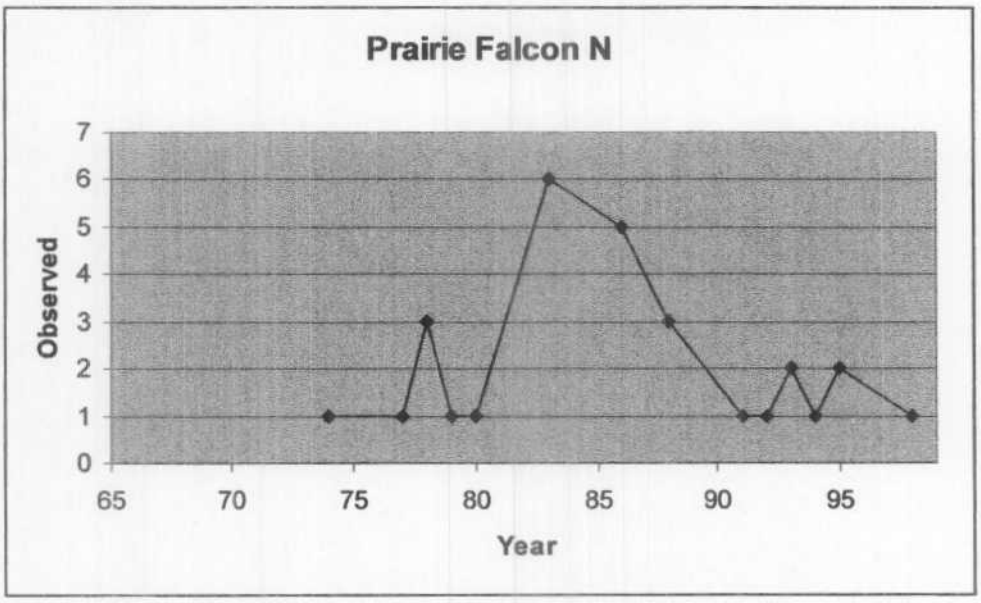


Mean 103 Standard Deviation 49

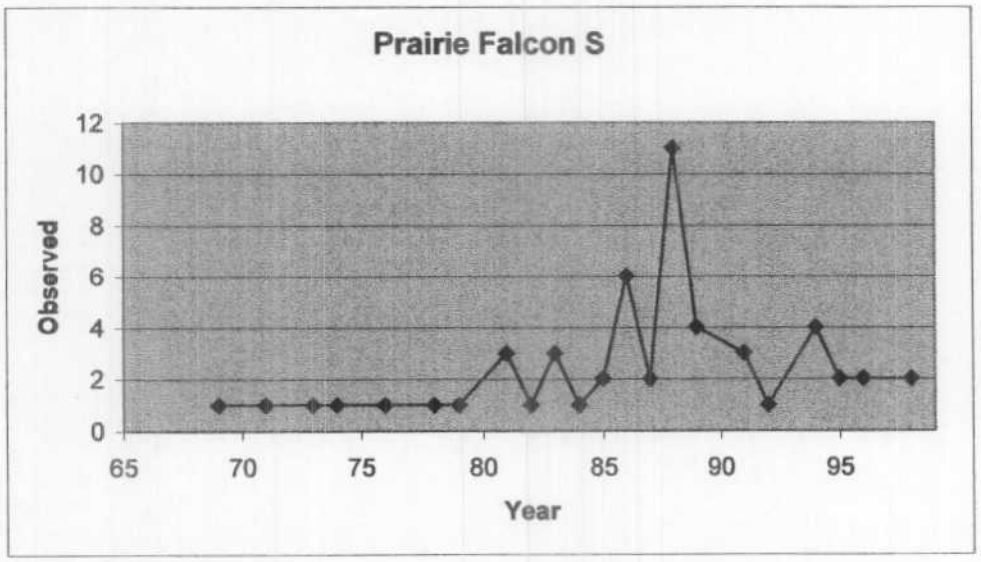


Mean 2

Standard Deviation 2

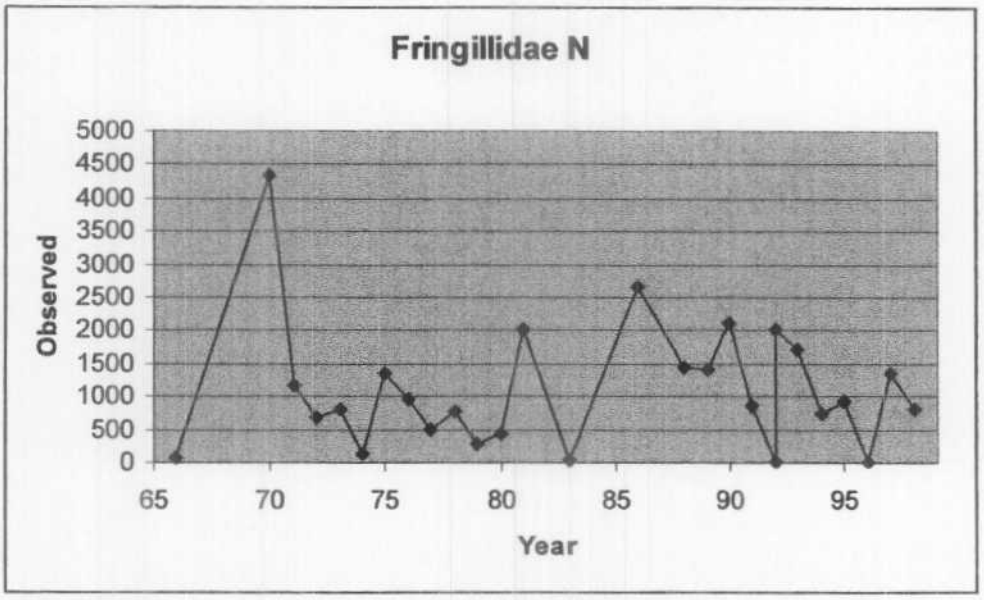


Mean 2 Standard Deviation 1

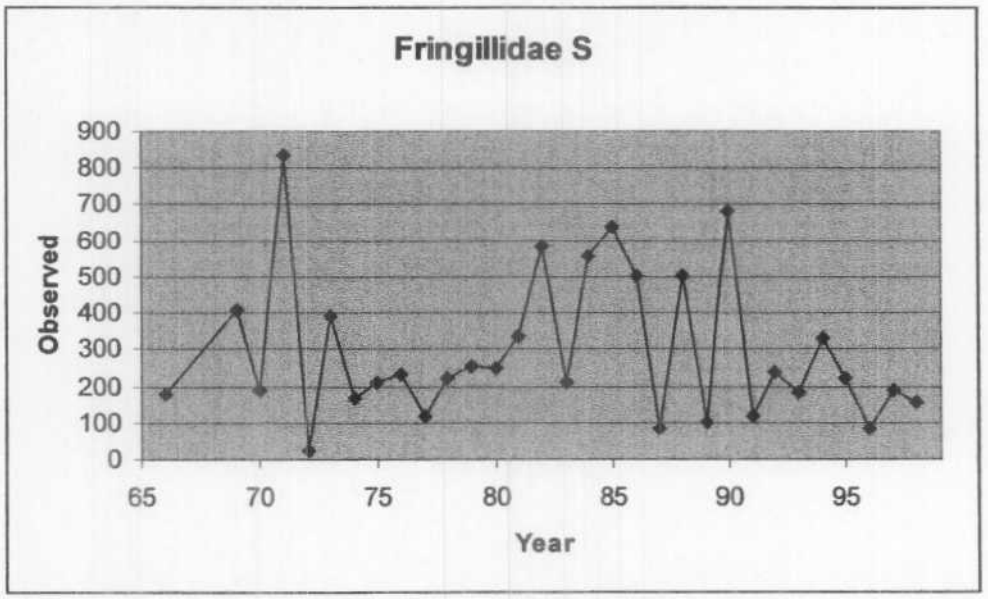


Mean 2 Standard Deviation 2

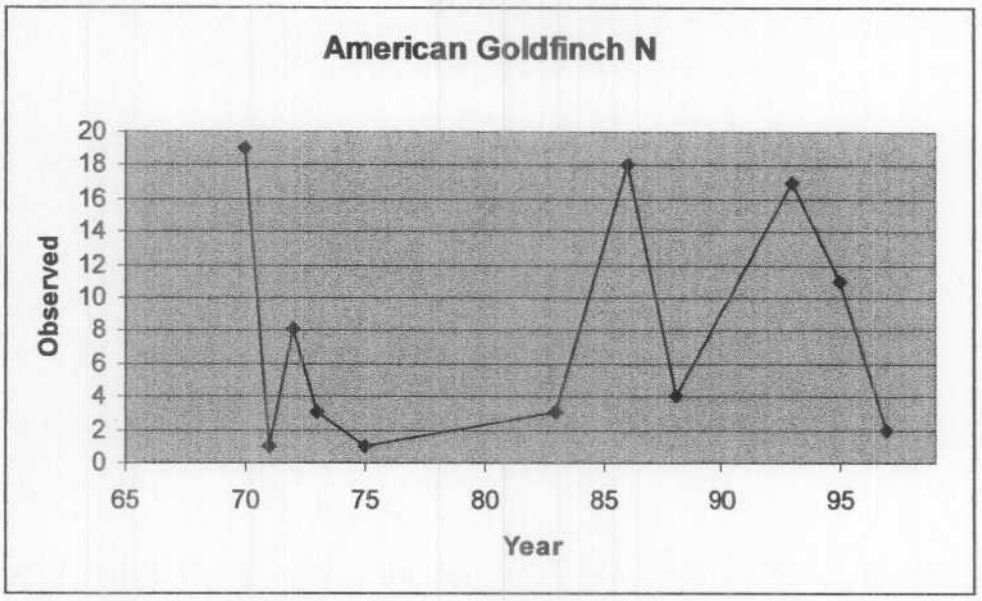
FRINGILLIDAE



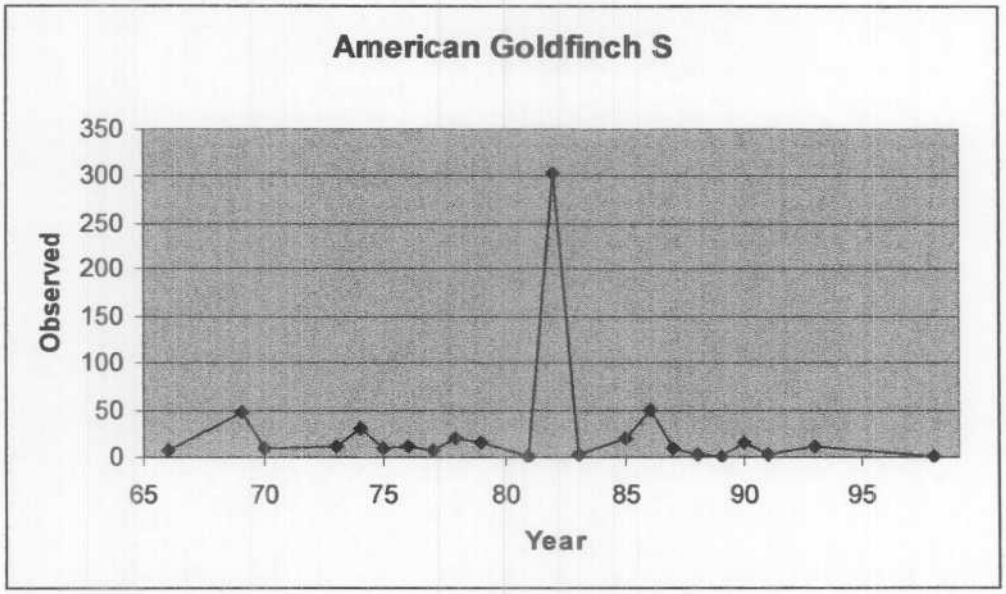
Mean 1084 Standard Deviation 943



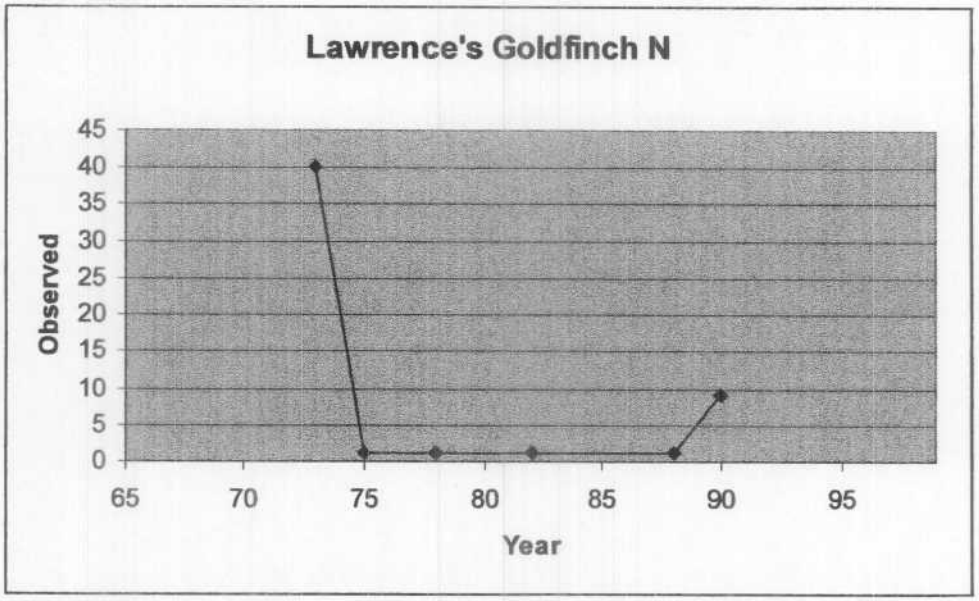
Mean 294 Standard Deviation 197



Mean 7 Standard Deviation 6

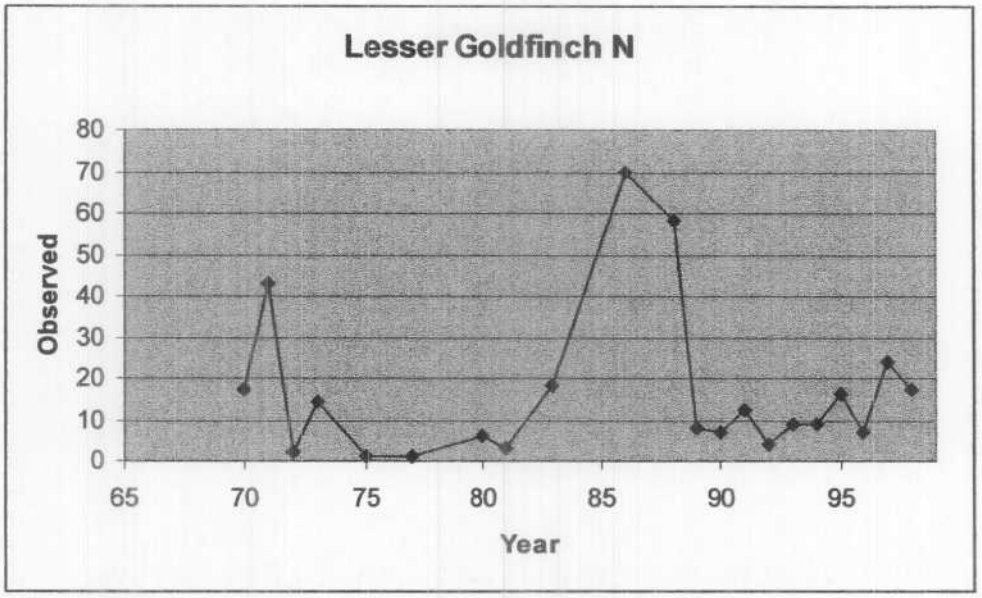


Mean 61 Standard Deviation 26

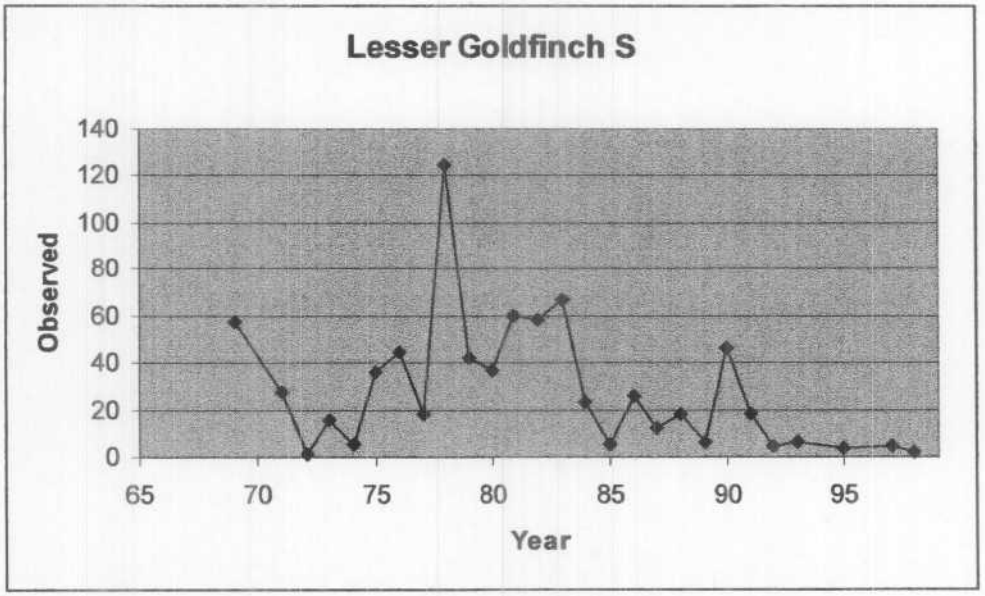


Mean 8

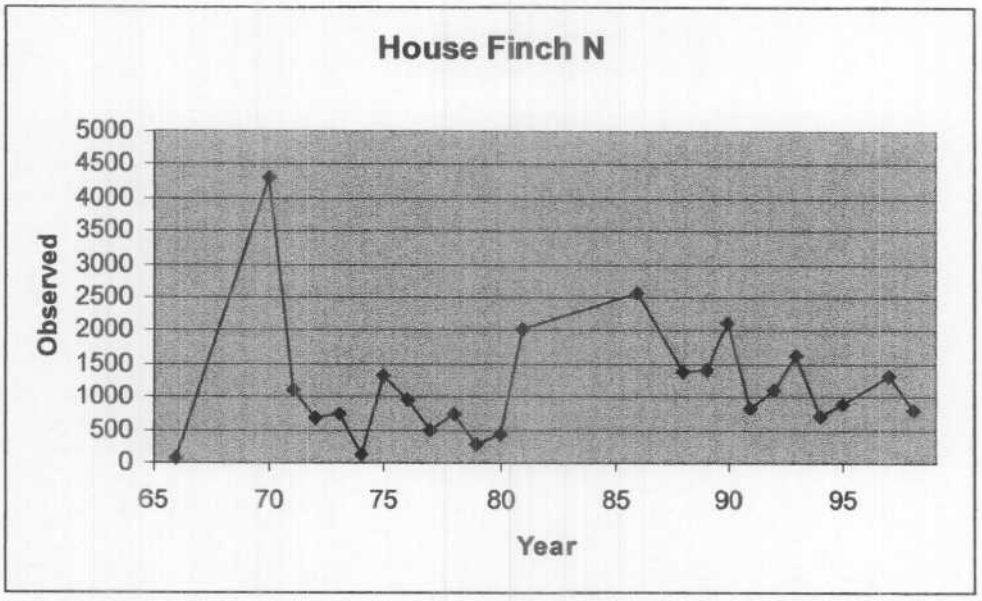
Standard Deviation 14



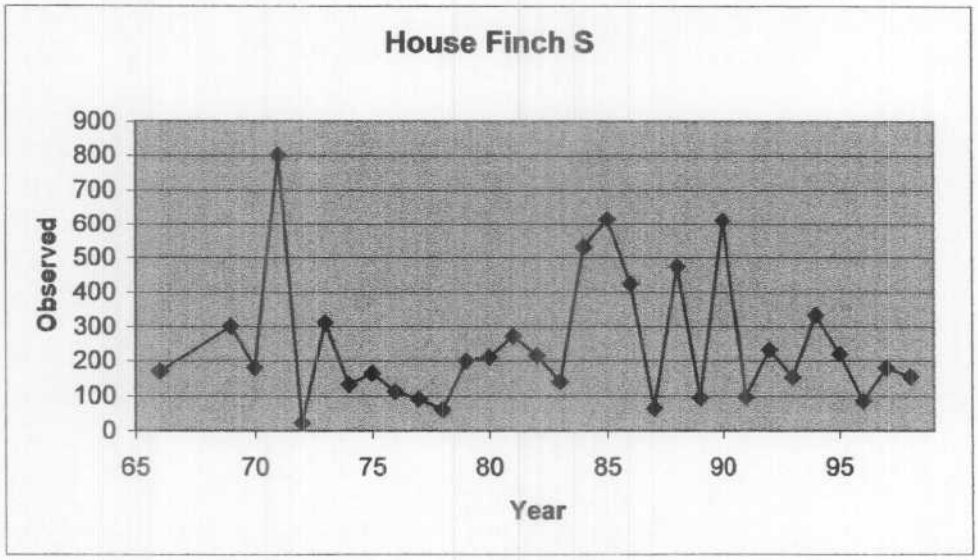
Mean 16 Standard Deviation 18



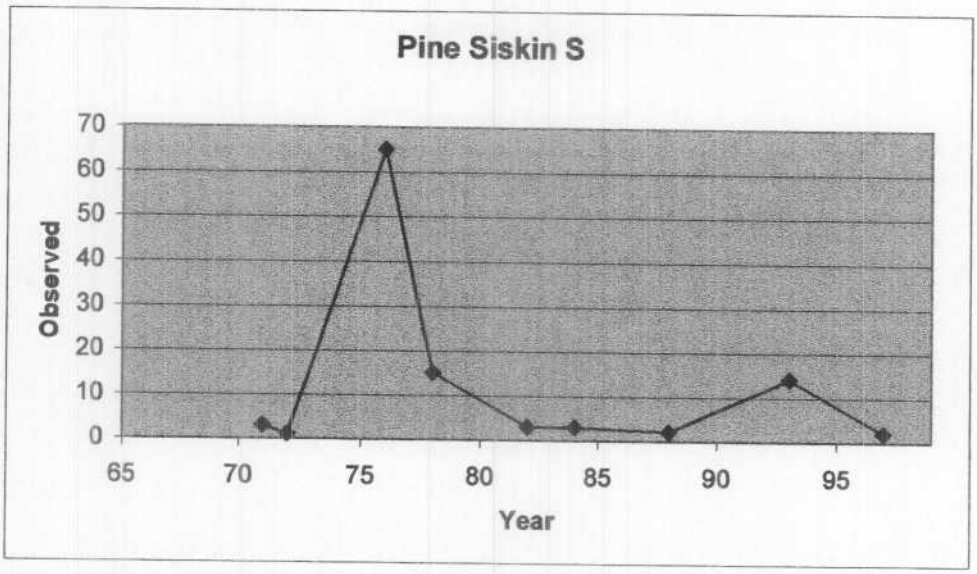
Mean 28 Standard Deviation 27



Mean 1158 Standard Deviation 889



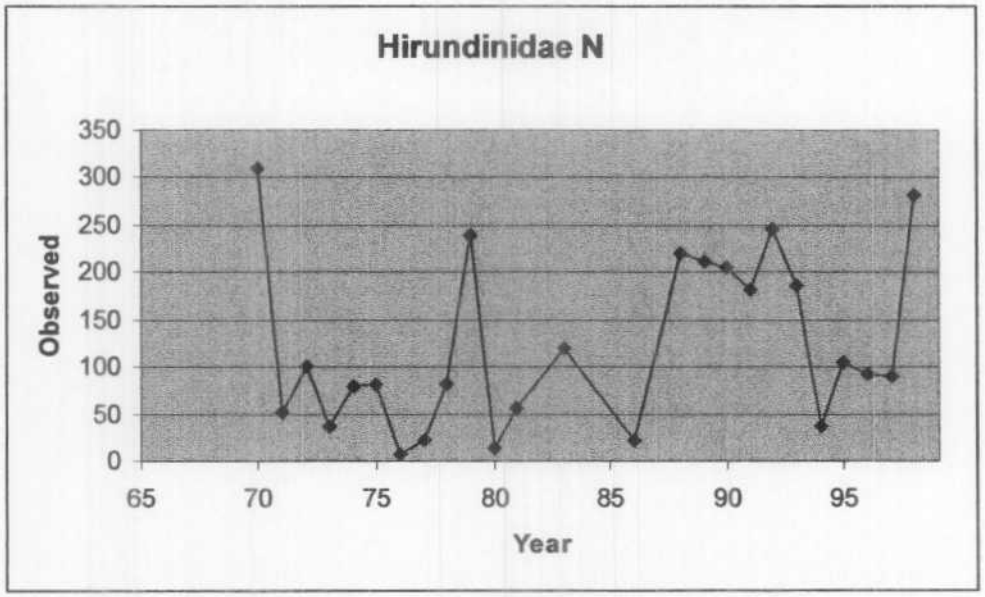
Mean 184 Standard Deviation 245



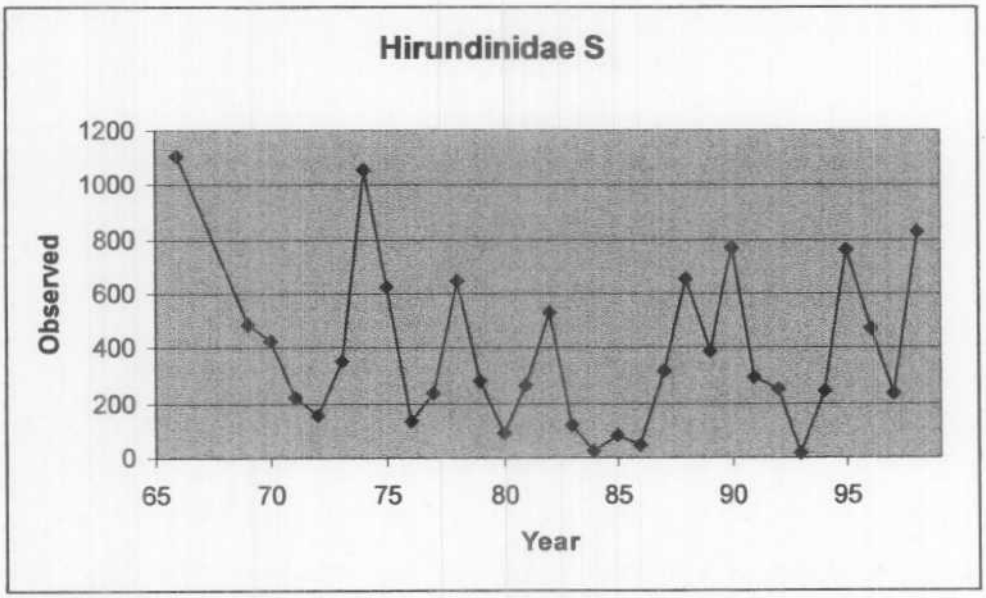
Mean 12

Standard Deviation 19

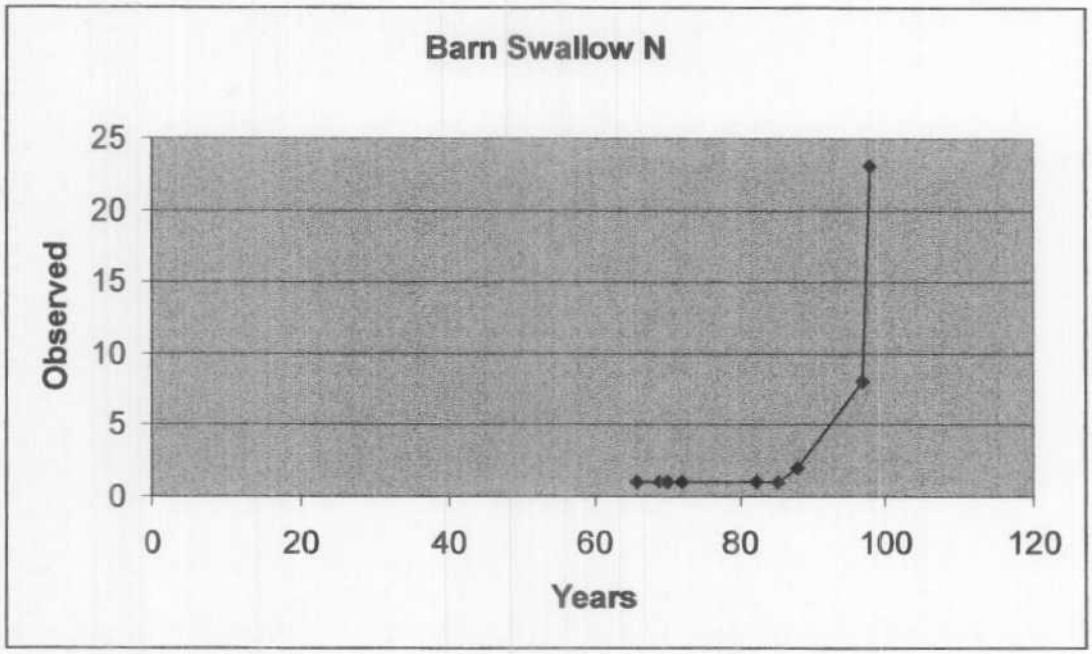
HIRUNDINIDAE



Mean 122 Standard Deviation 89

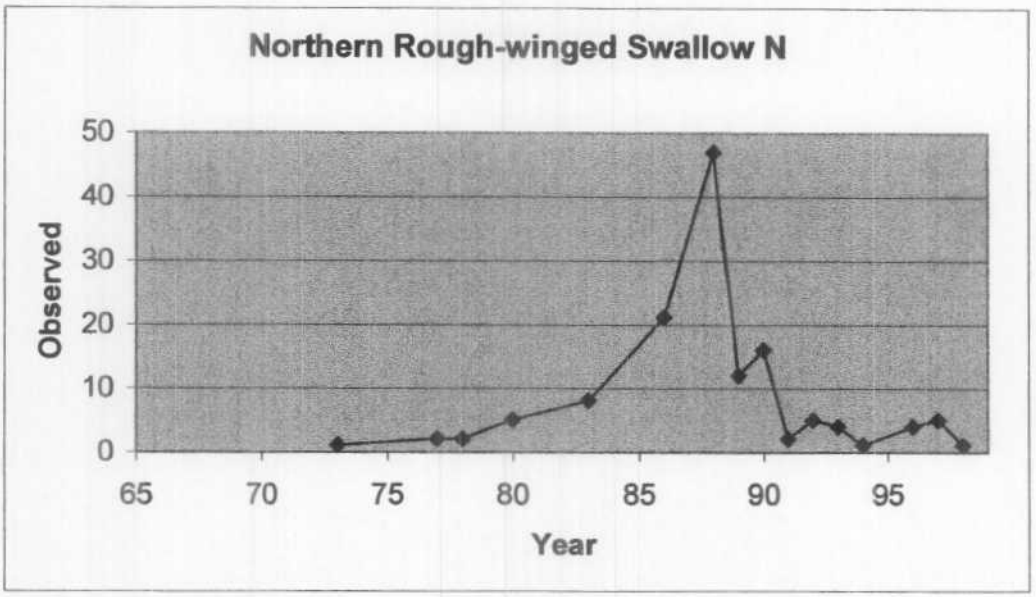


Mean 388 Standard Deviation 288

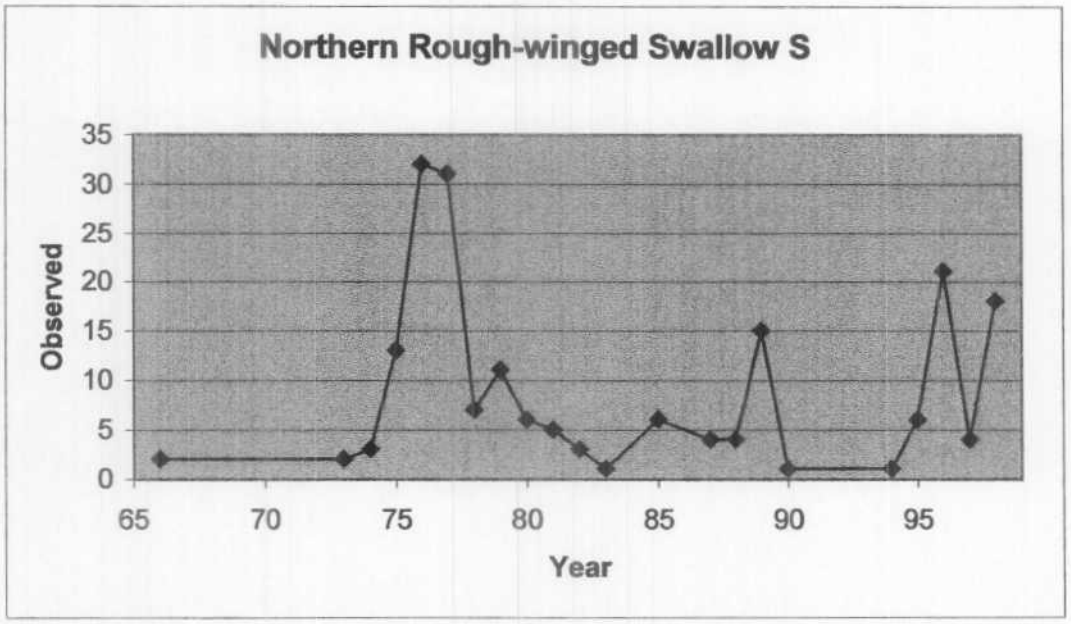


Mean 4

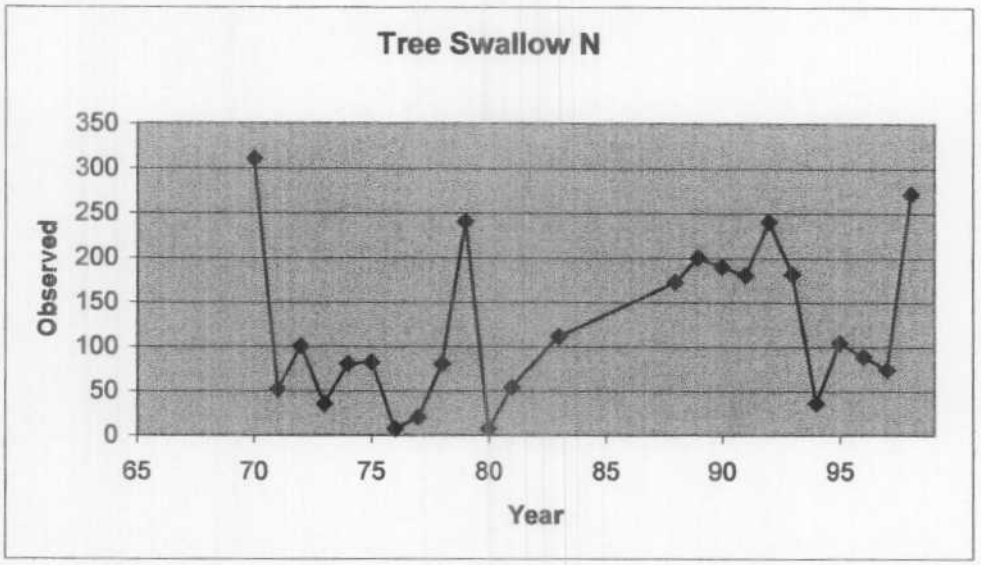
Standard Deviation 6



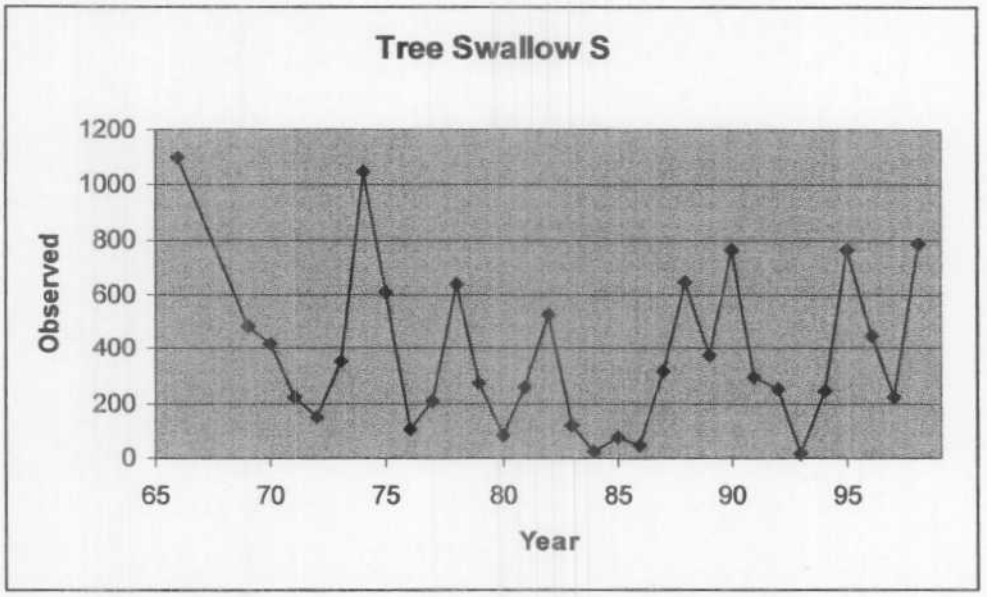
Mean 8 Standard Deviation 11



Mean 8 Standard Deviation 8

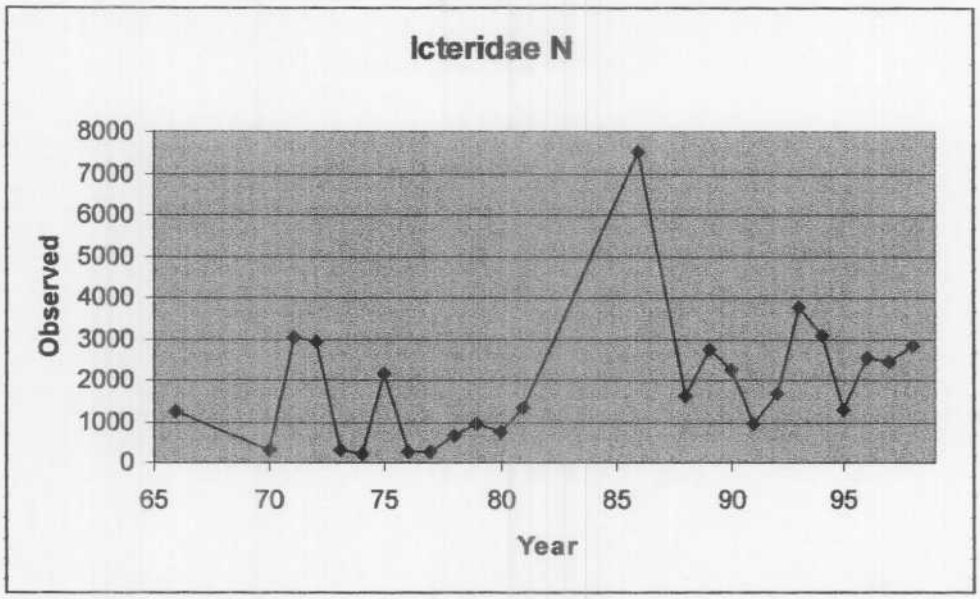


Mean 121 Standard Deviation 83

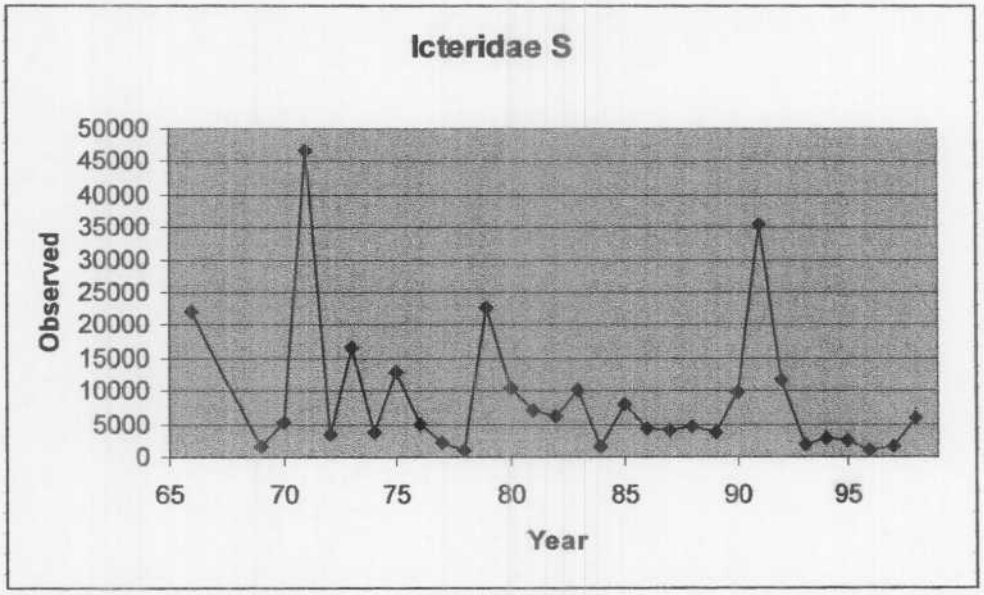


Mean 381 Standard Deviation 287

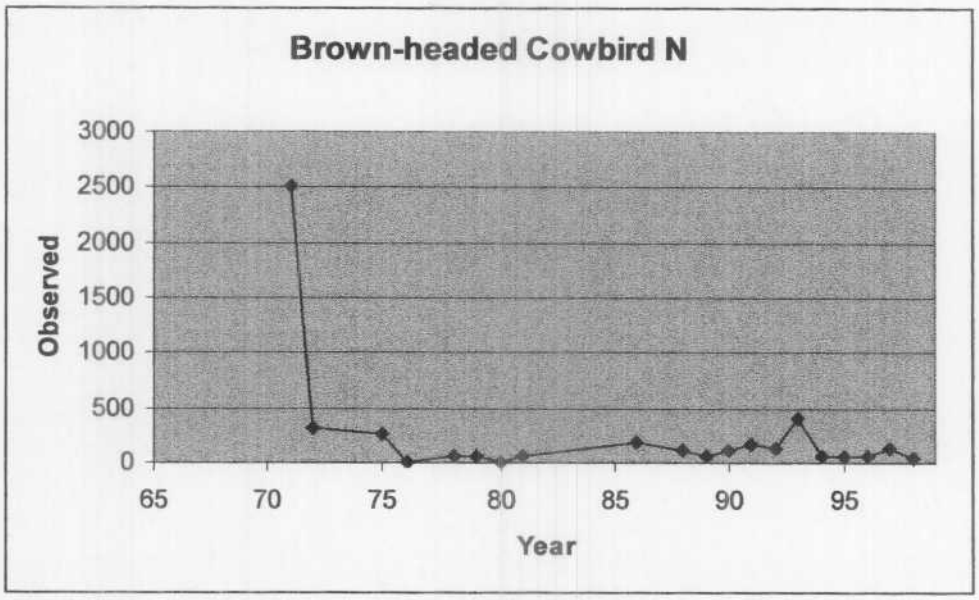
ICTERIDAE



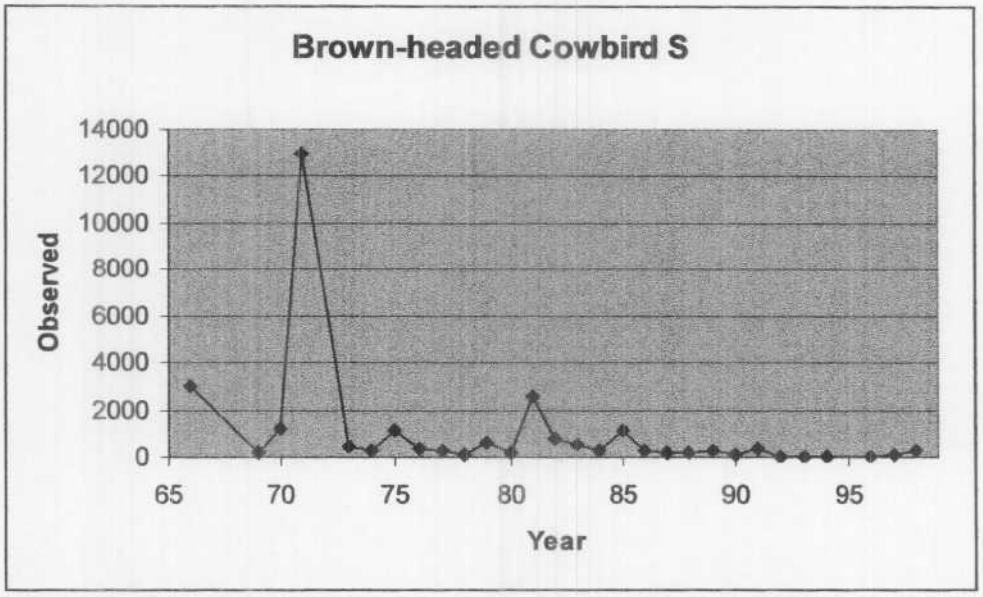
Mean 1896 Standard Deviation 1583



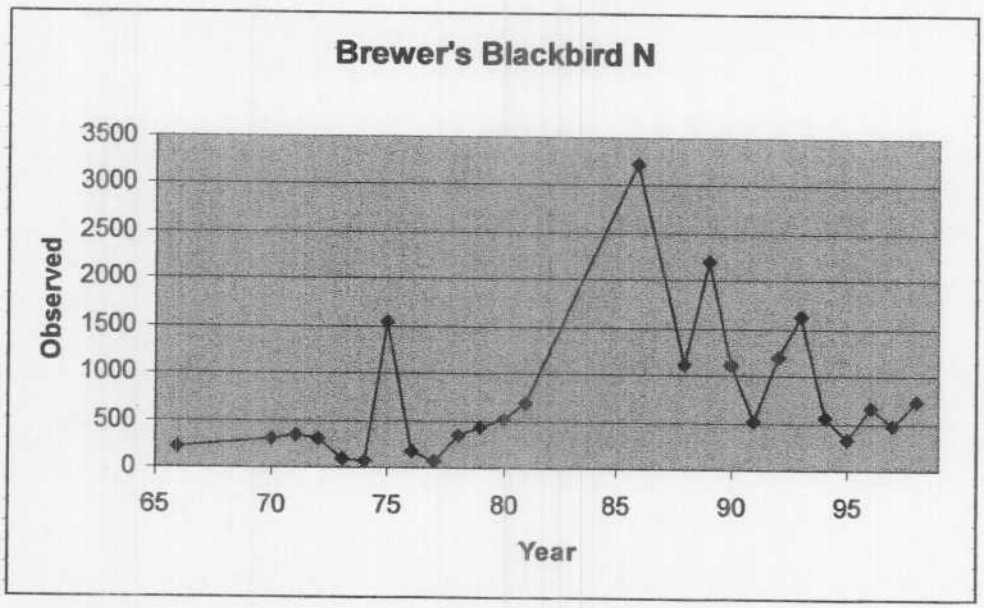
Mean 8821 Standard Deviation 10193



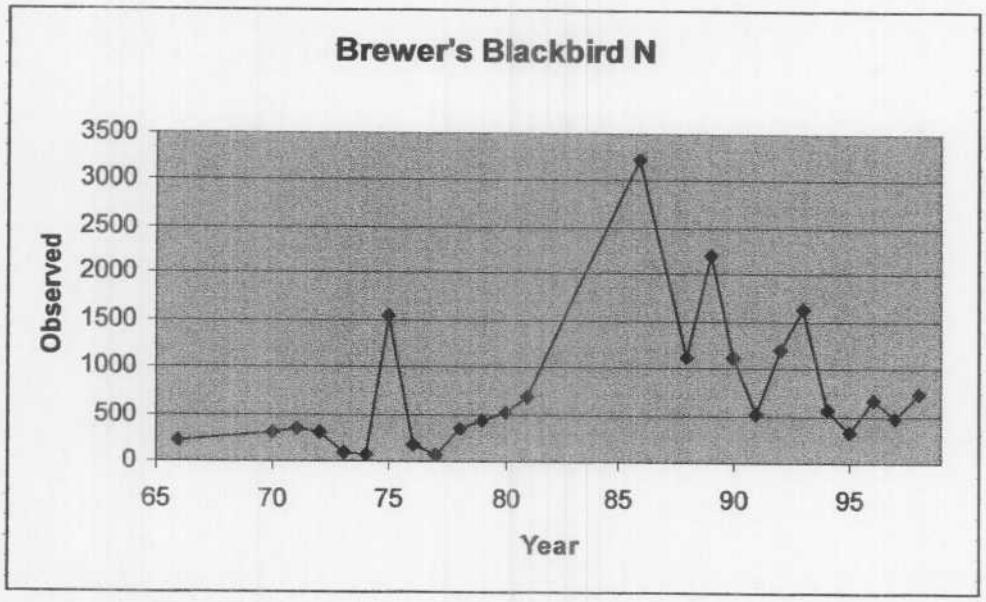
Mean 234 Standard Deviation 529



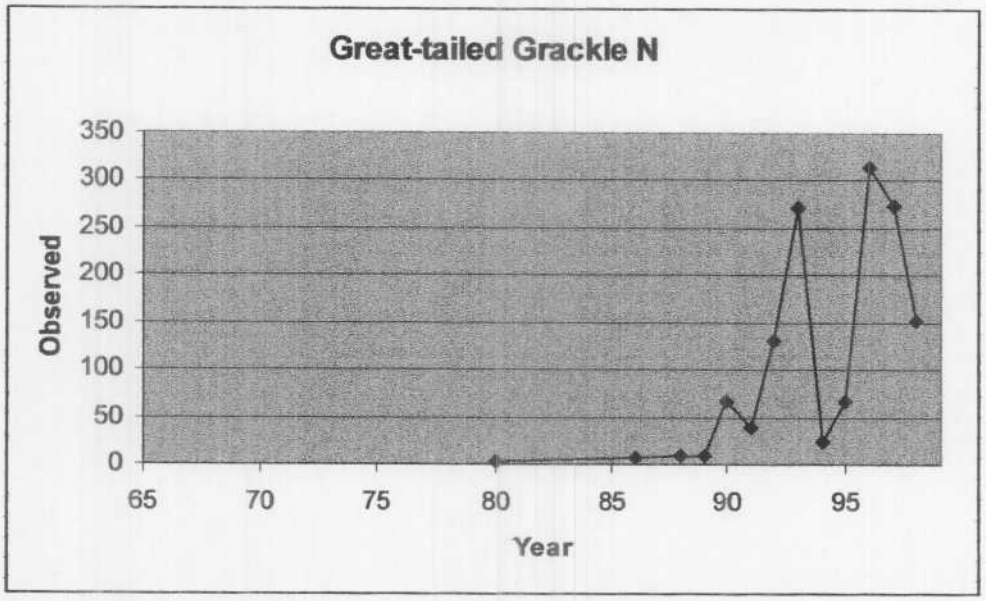
Mean 948 Standard Deviation 2381



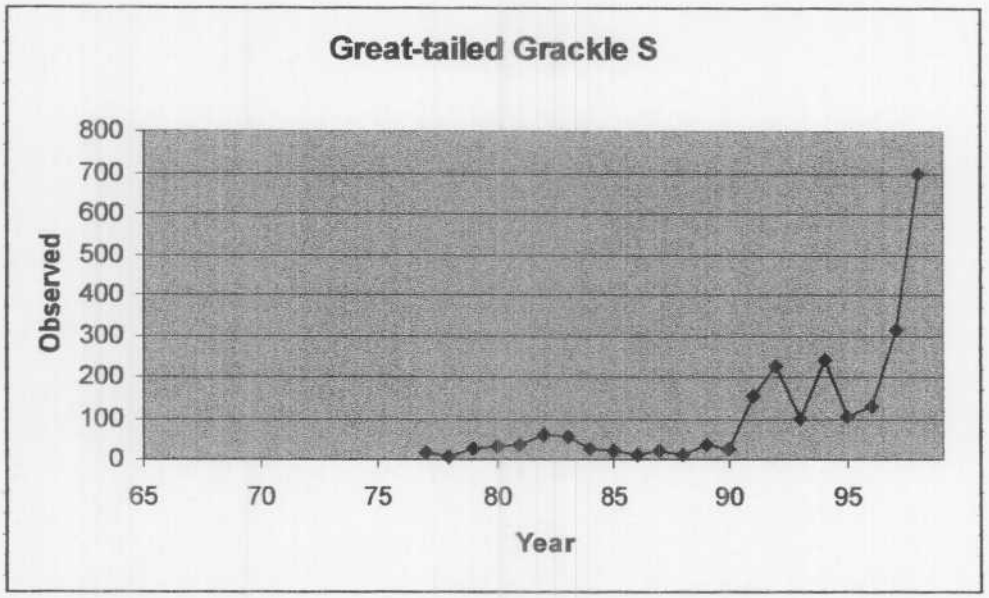
Mean 750 Standard Deviation 732



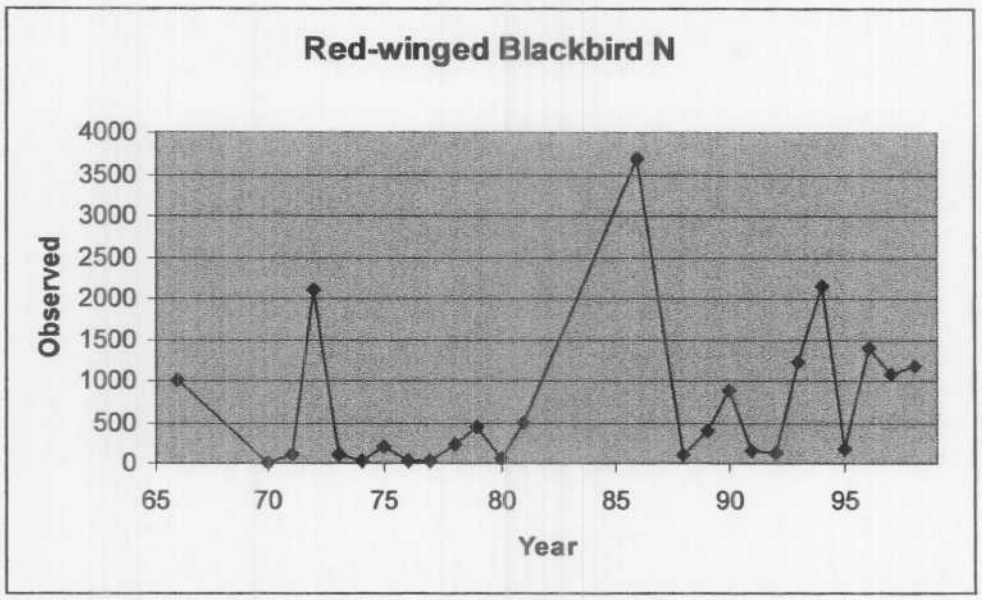
Mean 926 Standard Deviation 953



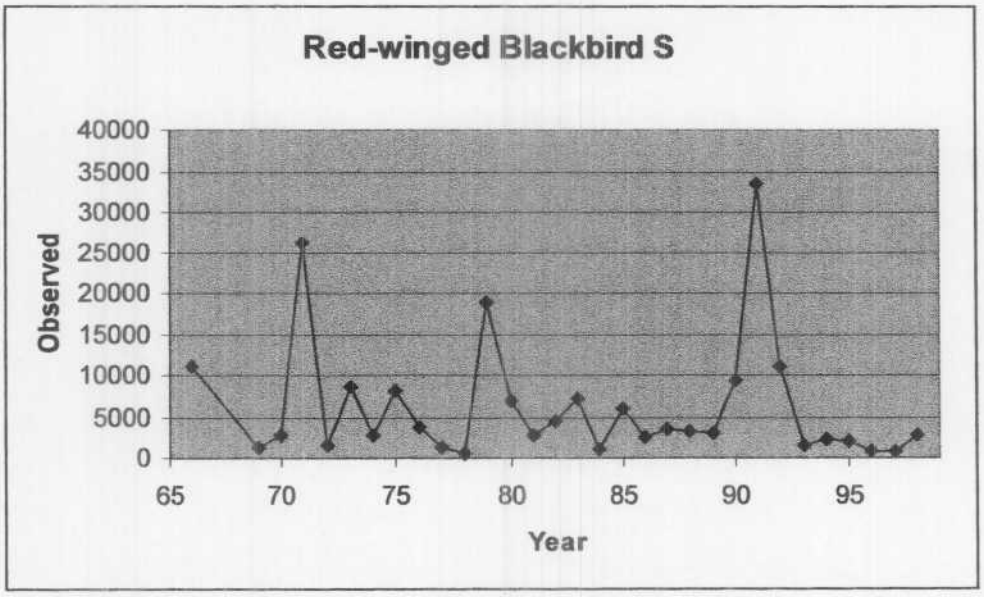
Mean 104 Standard Deviation 109



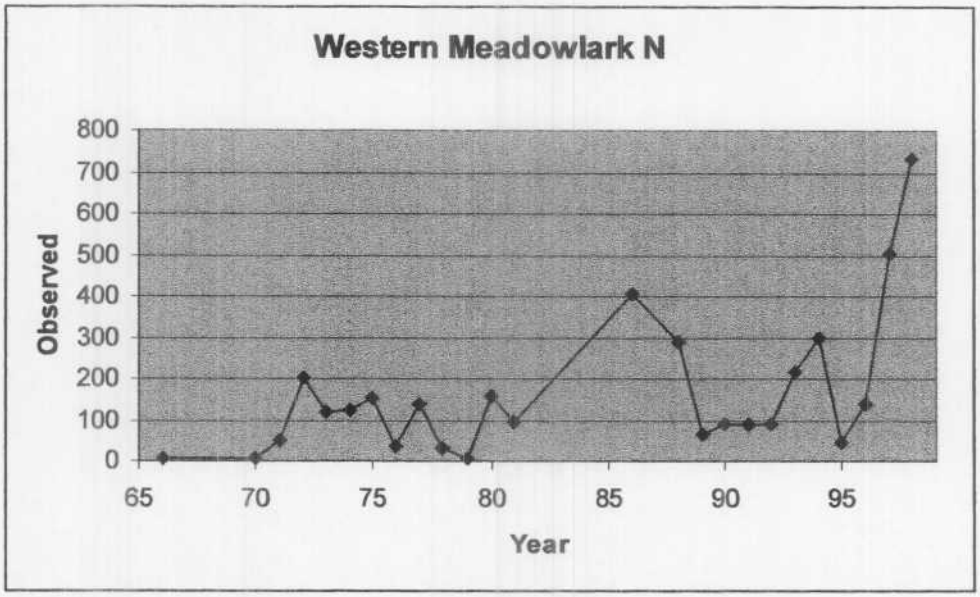
Mean 105 Standard Deviation 153



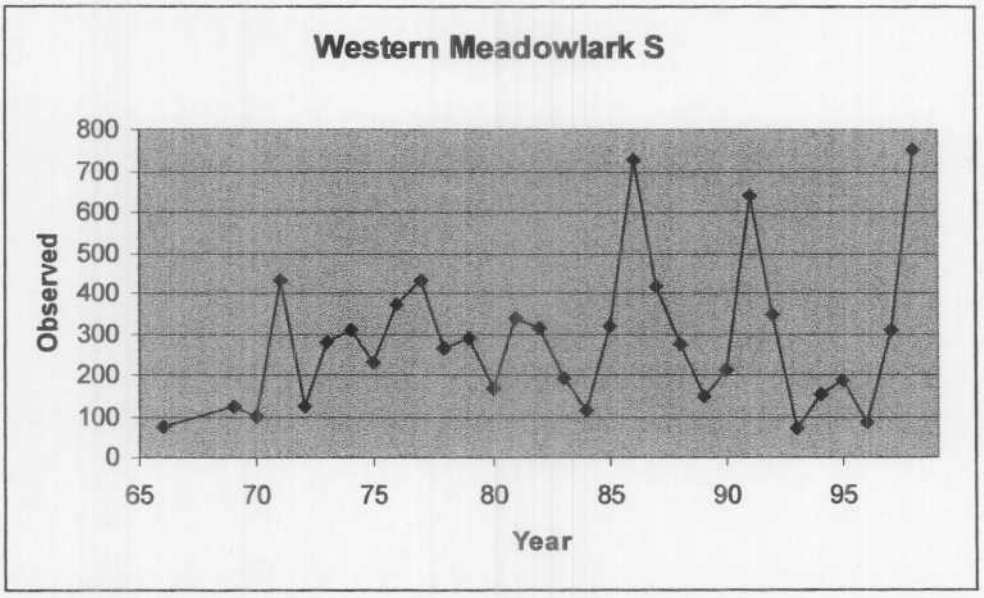
Mean 689 Standard Deviation 875



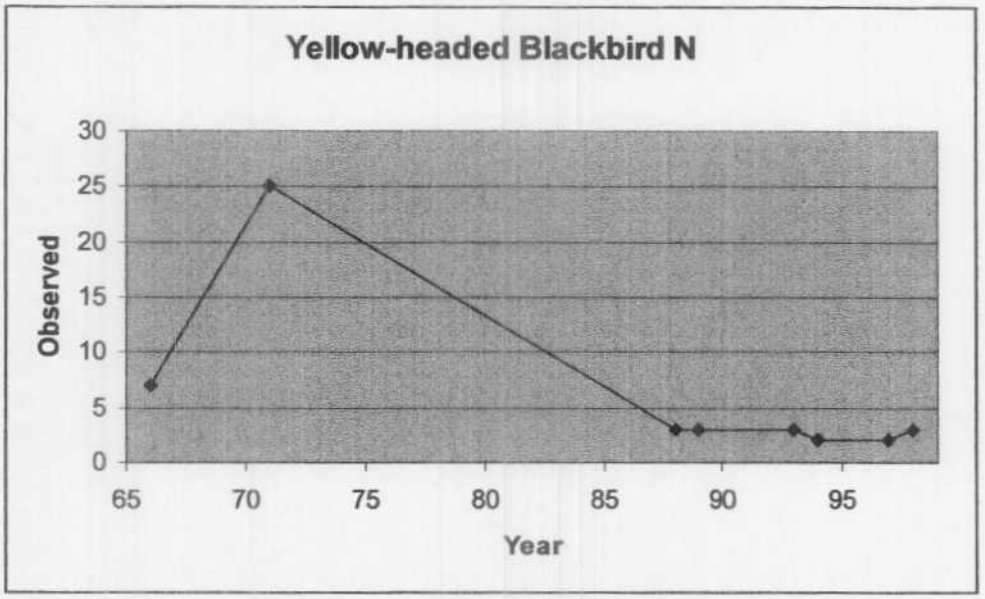
Mean 6067 Standard Deviation 7422



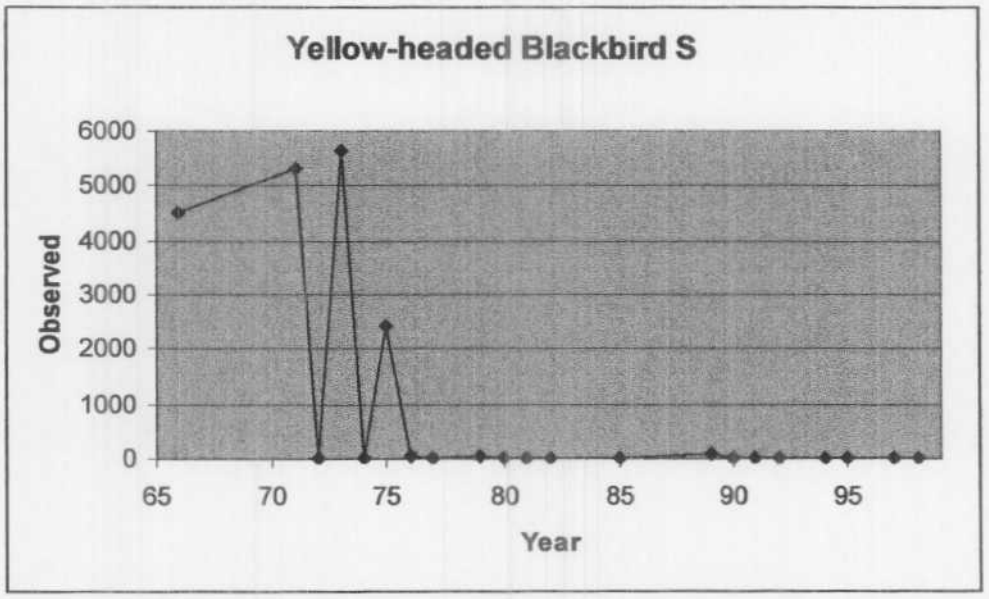
Mean 161 Standard Deviation 168



Mean 282 Standard Deviation 174

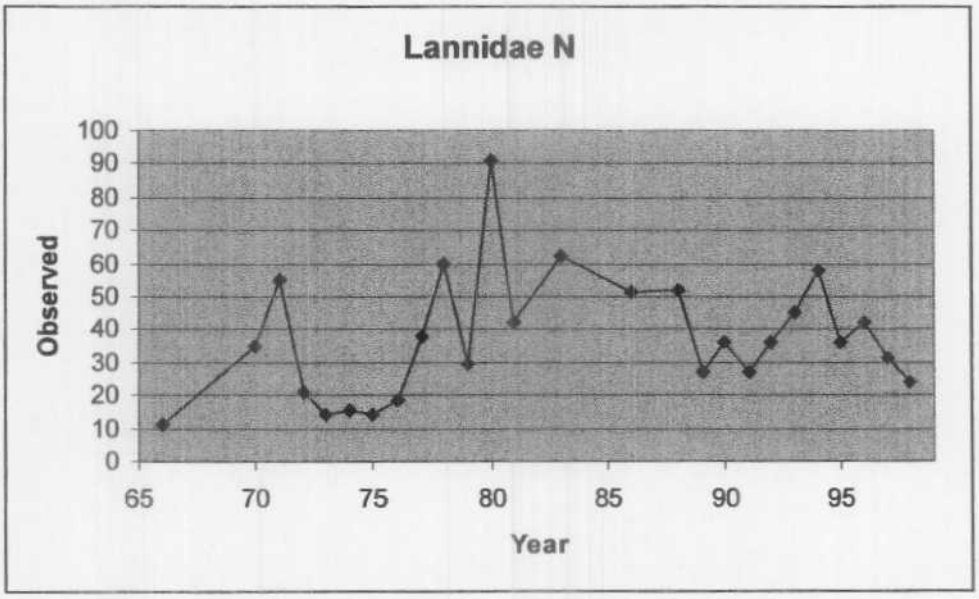


Mean 6 Standard Deviation 7

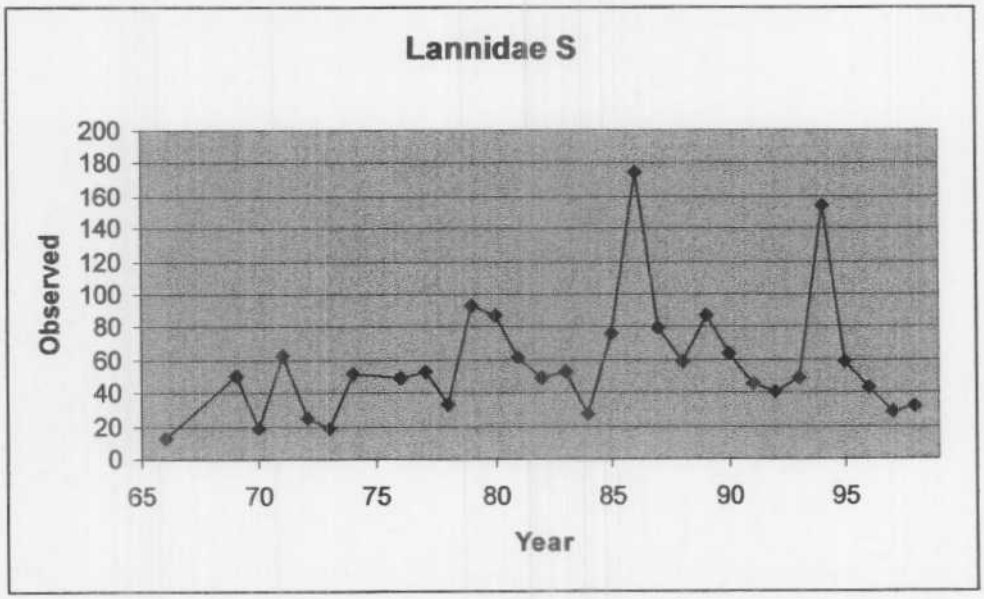


Mean 860 Standard Deviation 1829

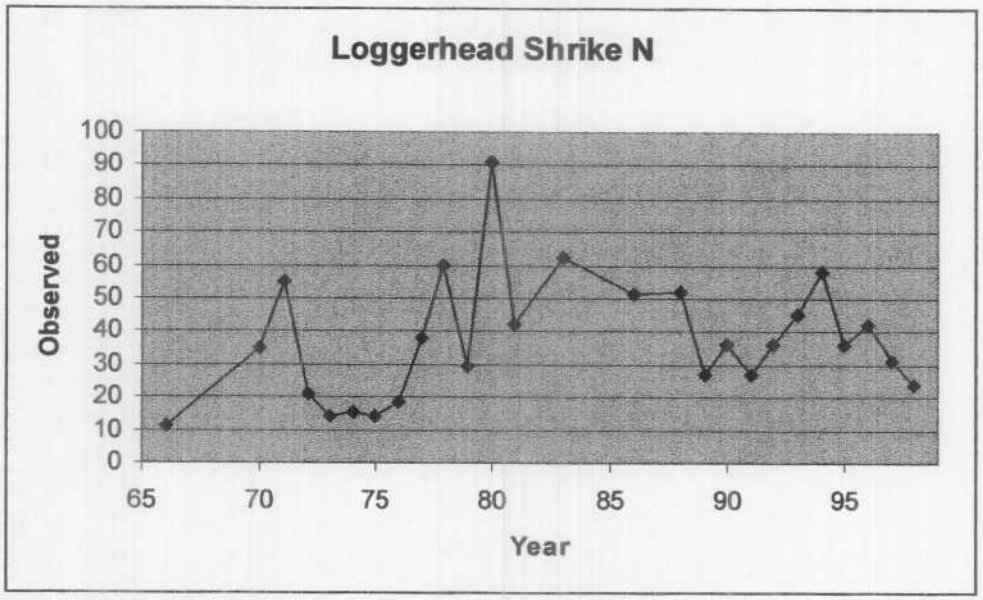
LANNIDAE



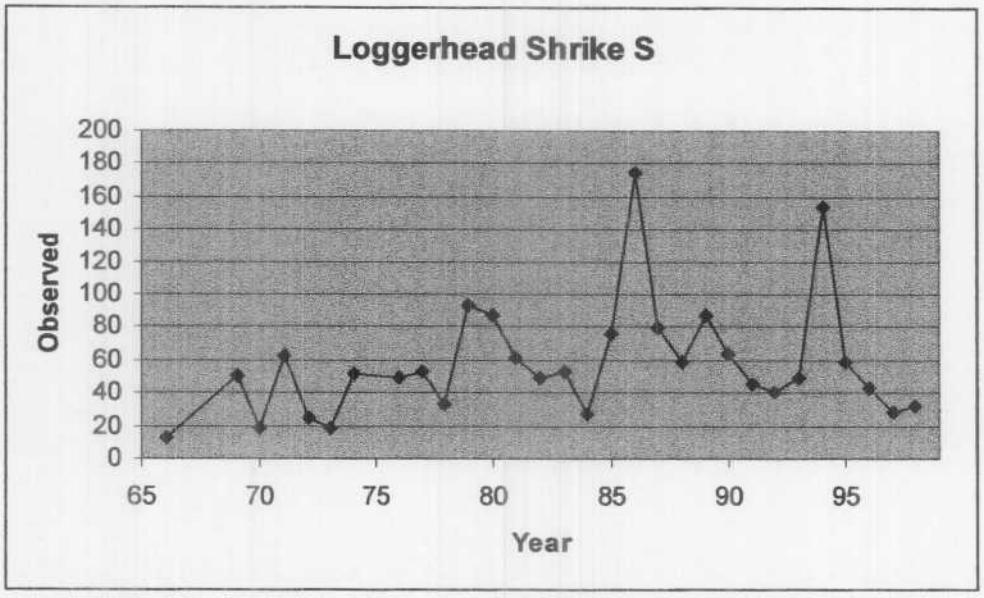
Mean 37 Standard Deviation 18



Mean 57 Standard Deviation 35

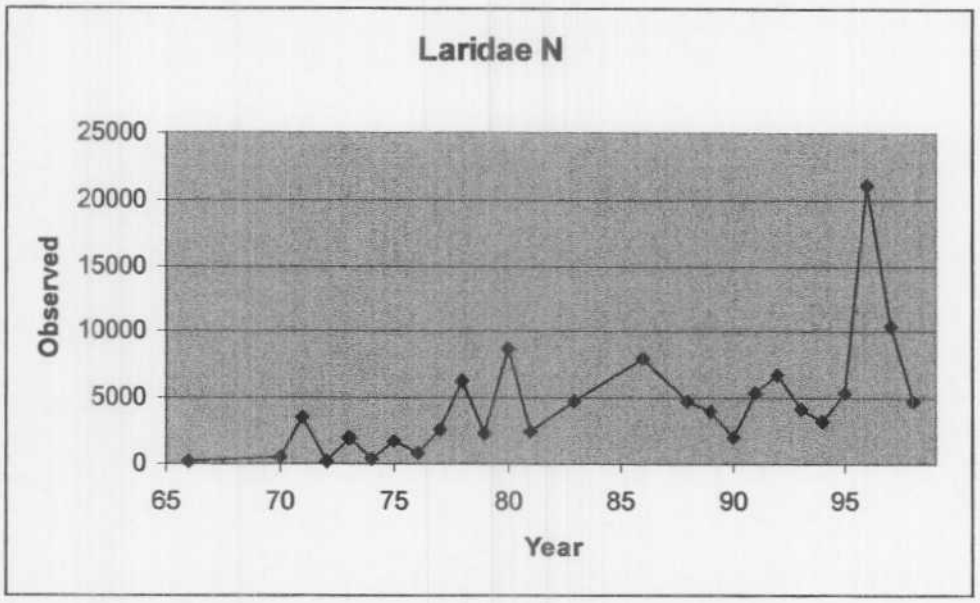


Mean 36 Standard Deviation 18

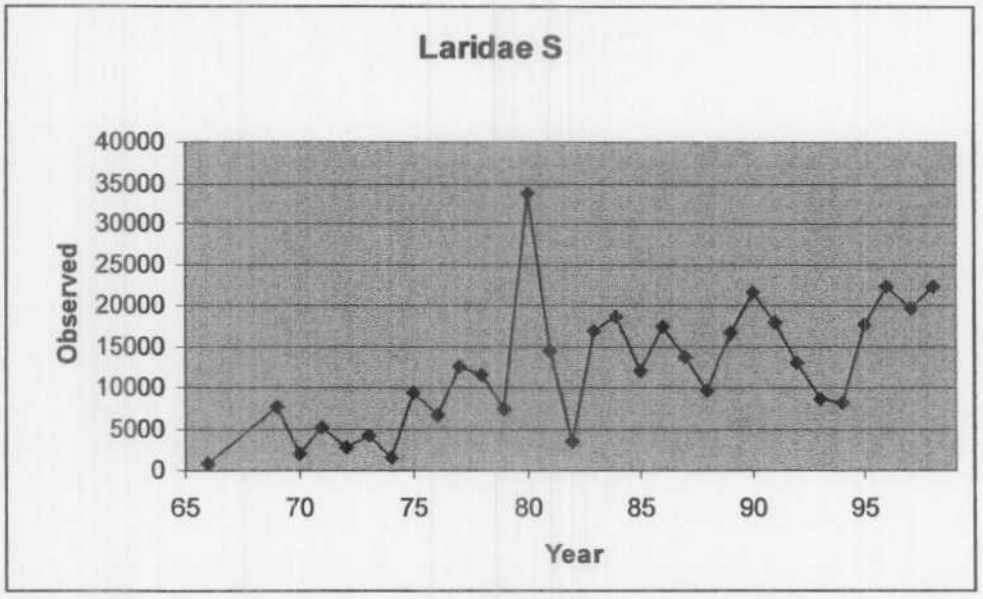


Mean 57 Standard Deviation 35

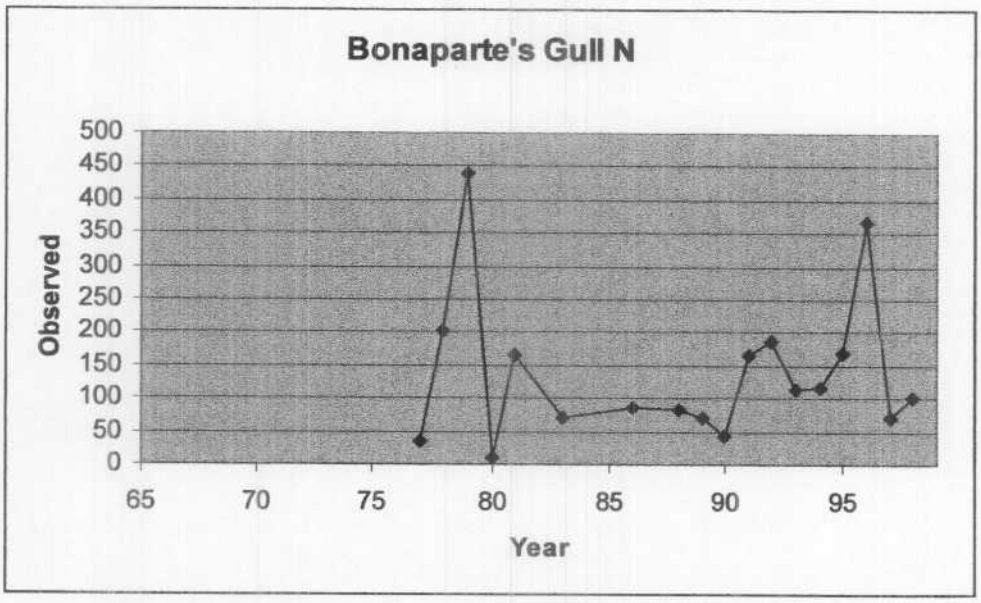
LARIDAE



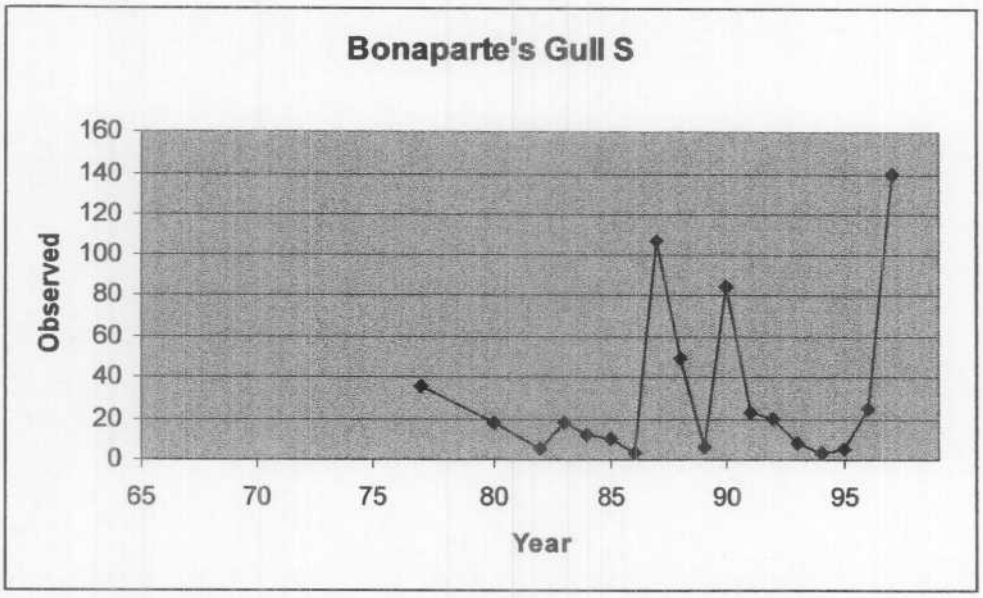
Mean 4344 Standard Deviation 4194



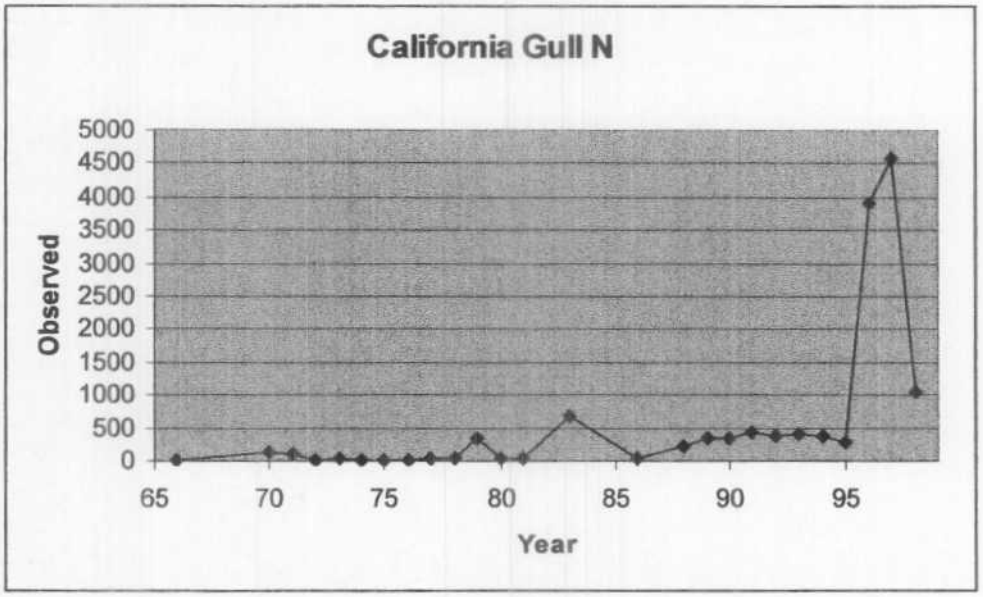
Mean 12140 Standard Deviation 7481



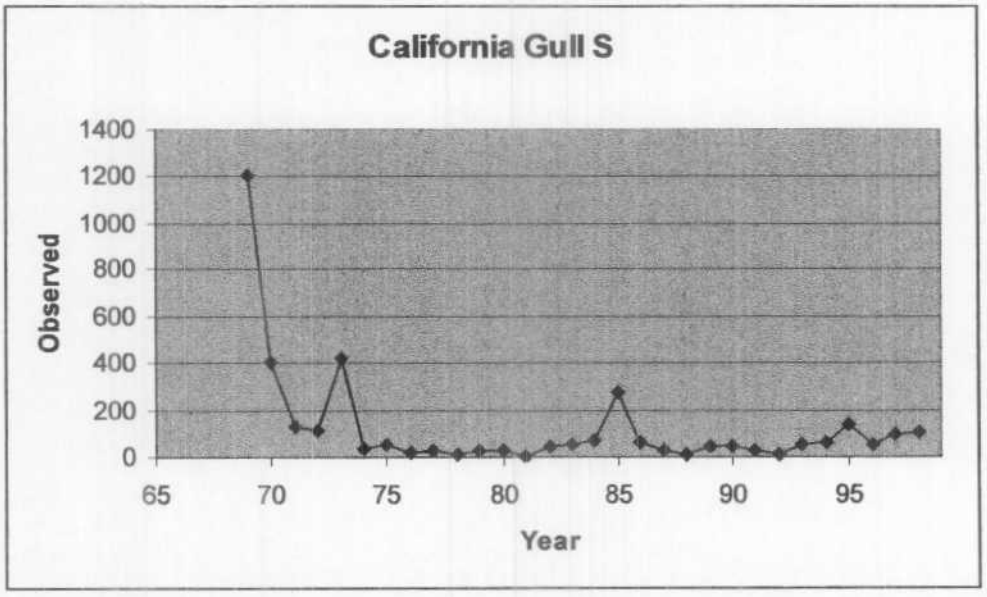
Mean 114 Standard Deviation 109



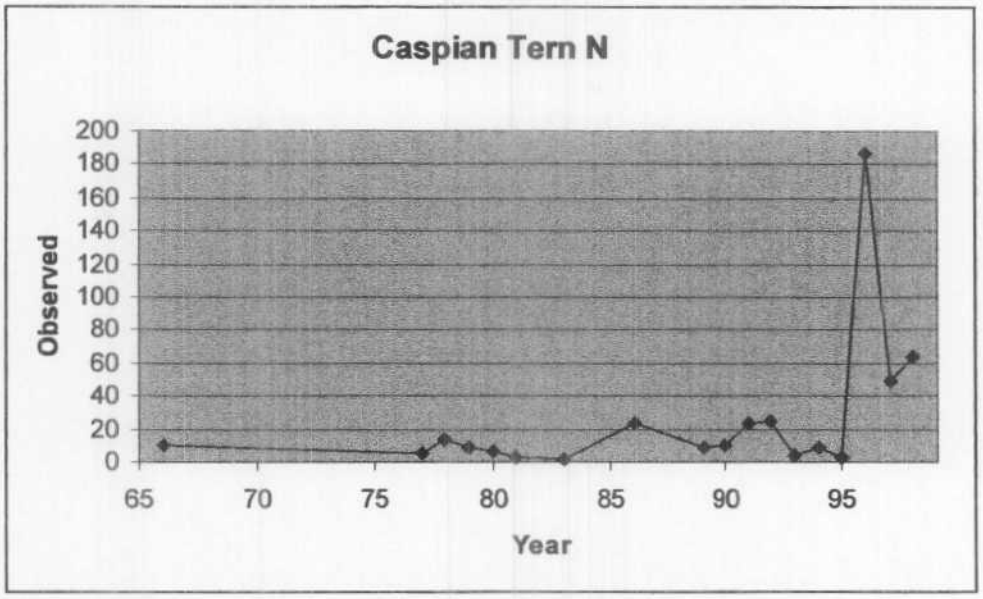
Mean 31 Standard Deviation 38



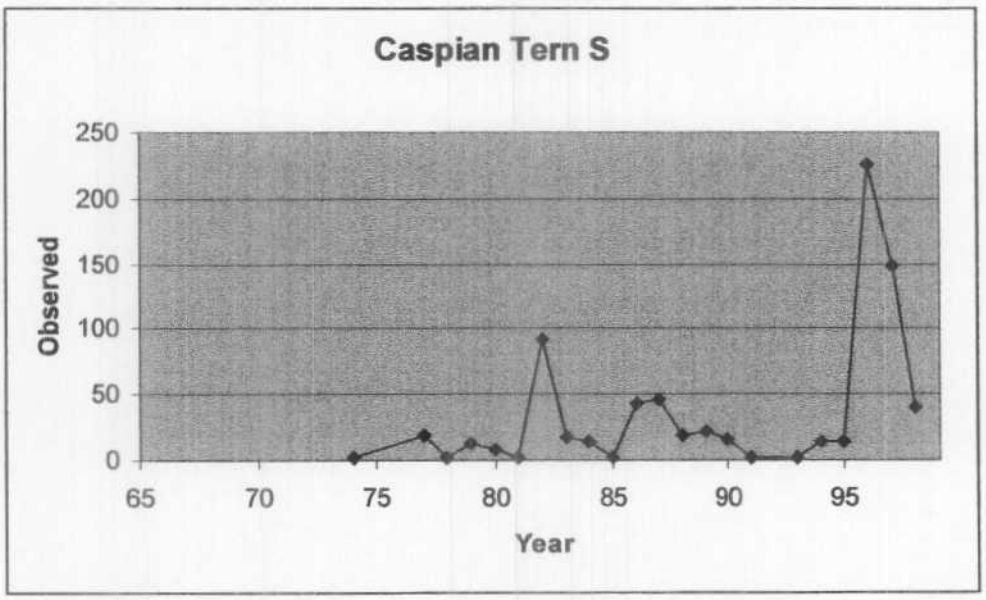
Mean 524 Standard Deviation 1100



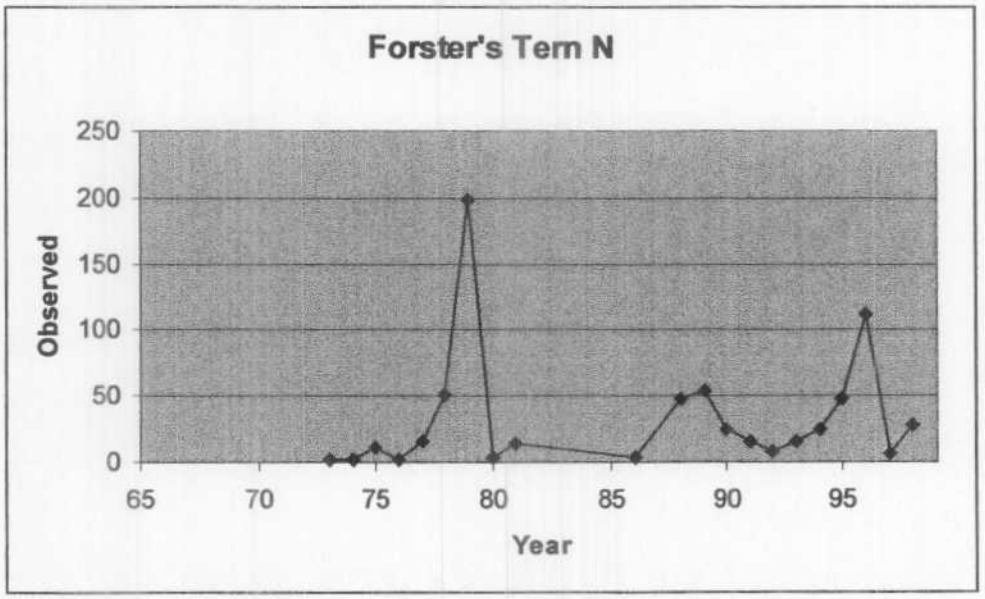
Mean 119 Standard Deviation 221



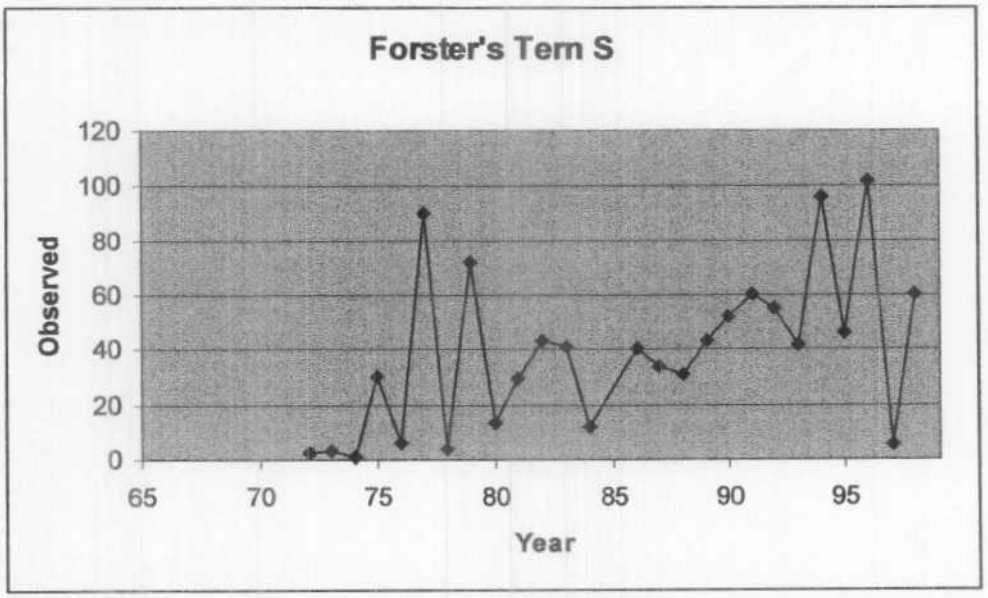
Mean 25 Standard Deviation 42



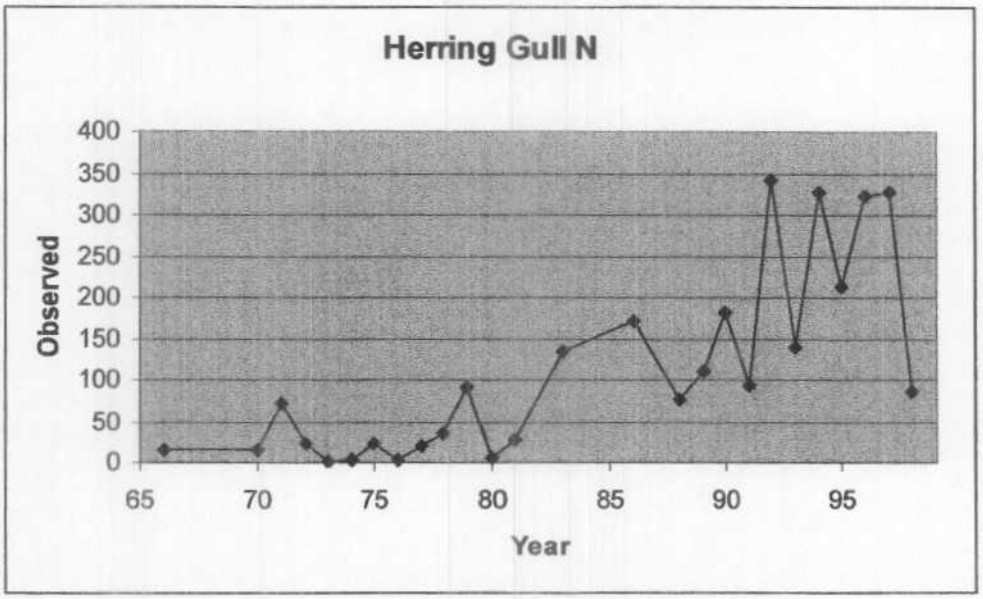
Mean 34 Standard Deviation 53



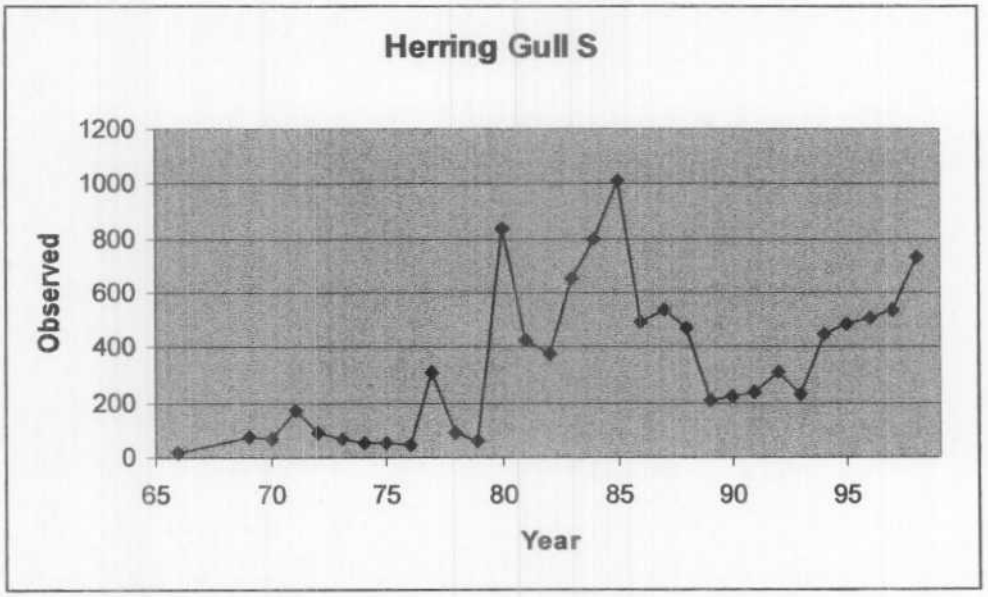
Mean 32 Standard Deviation 43



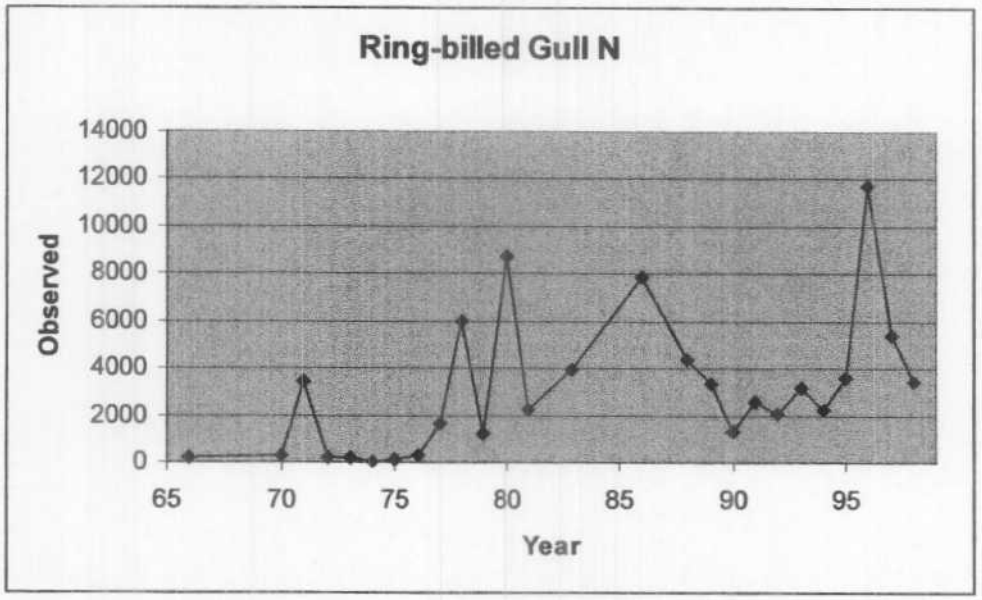
Mean 38 Standard Deviation 28



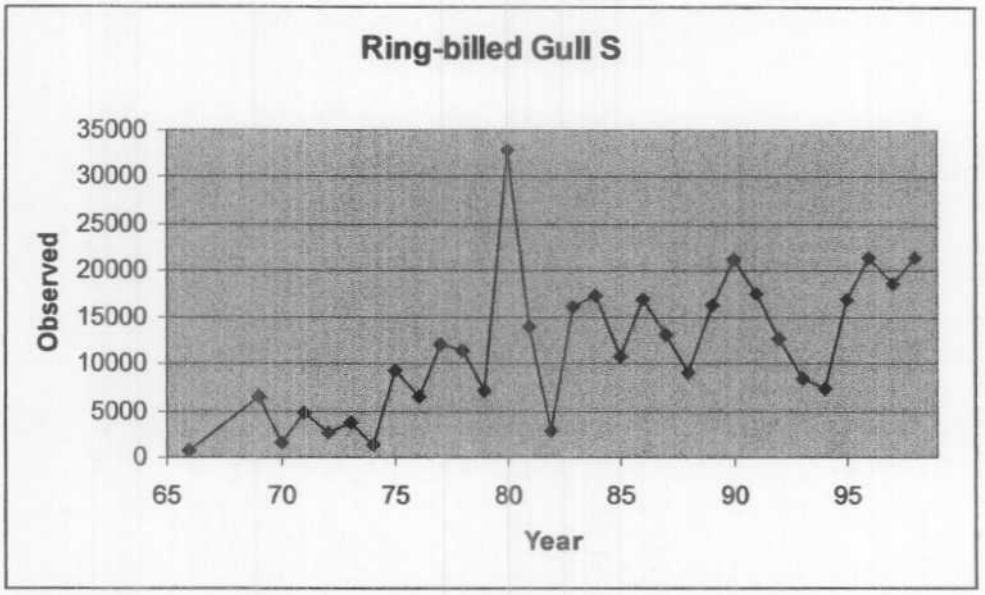
Mean 109 Standard Deviation 110



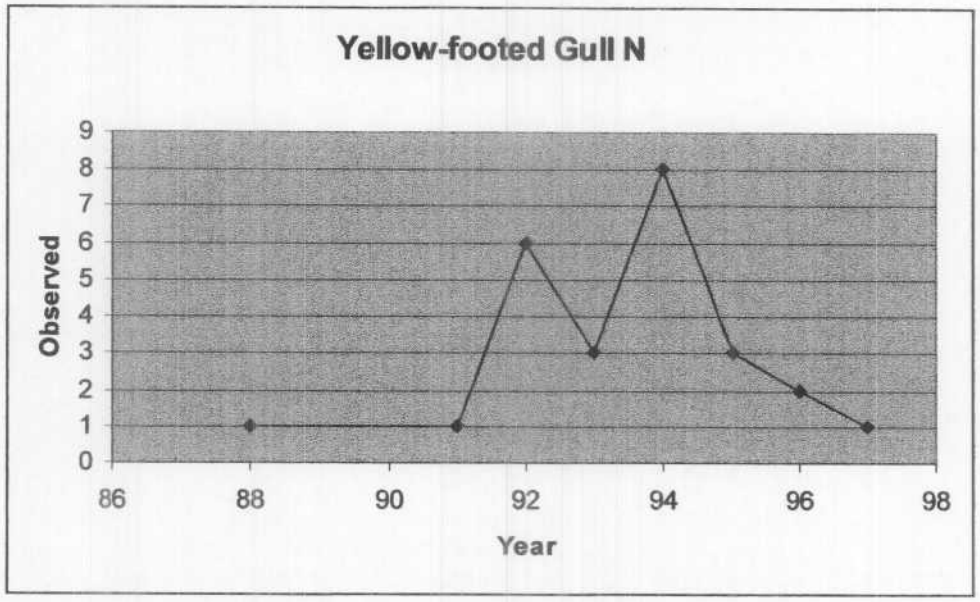
Mean 340 Standard Deviation 267



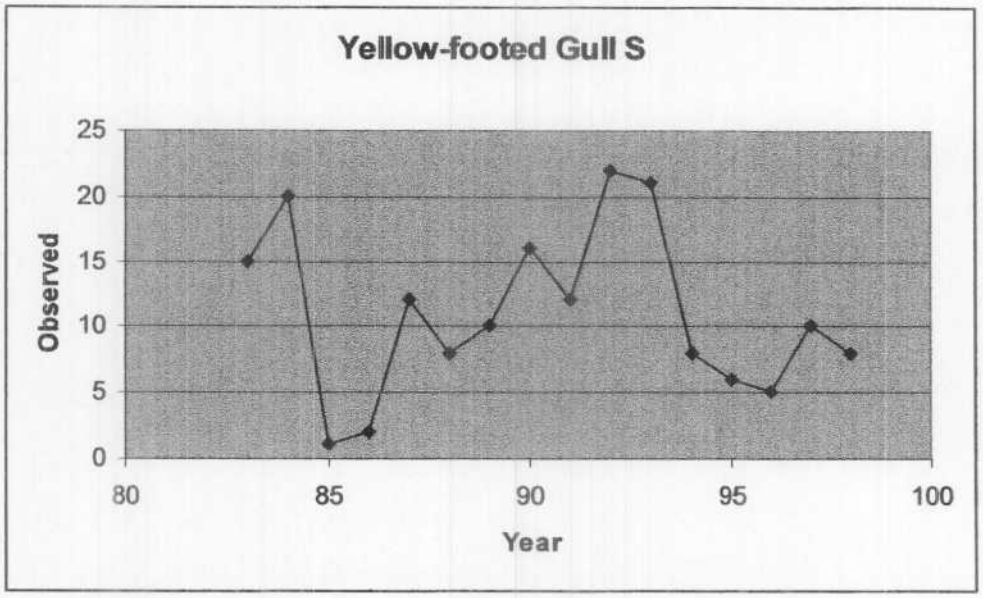
Mean 3034 Standard Deviation 2887



Mean 11592 Standard Deviation 7308

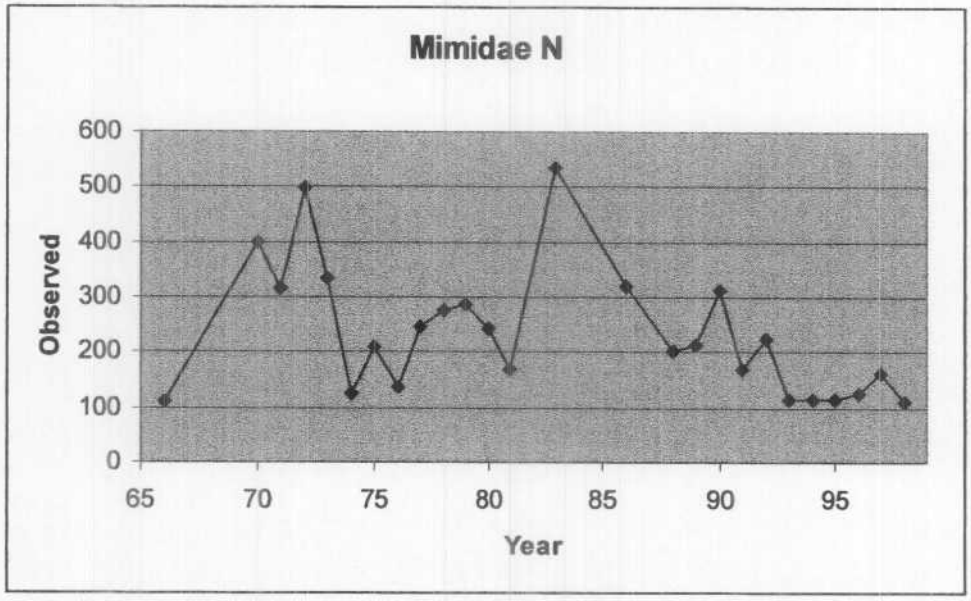


Mean 3 Standard Deviation 2

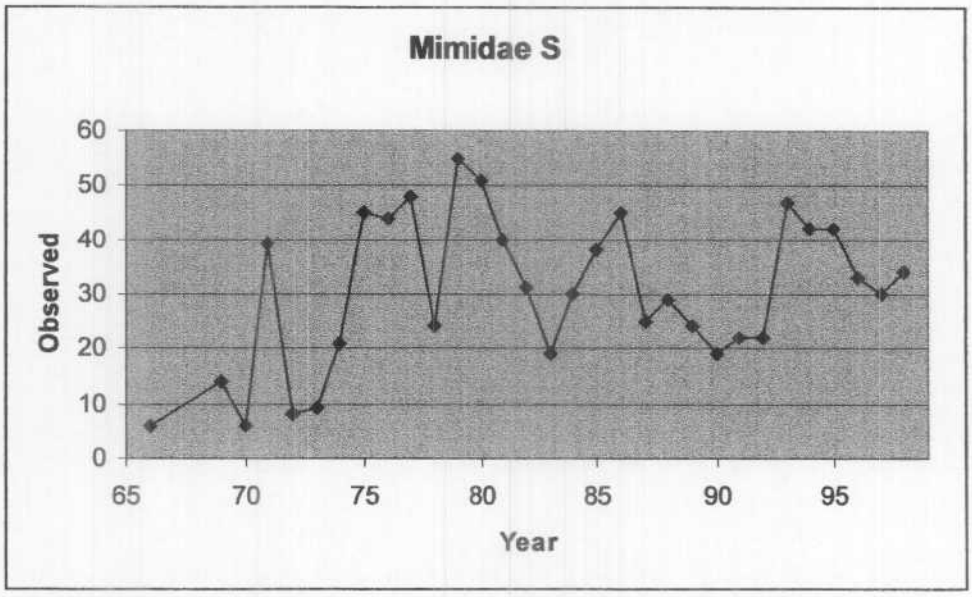


Mean 11 Standard Deviation 6

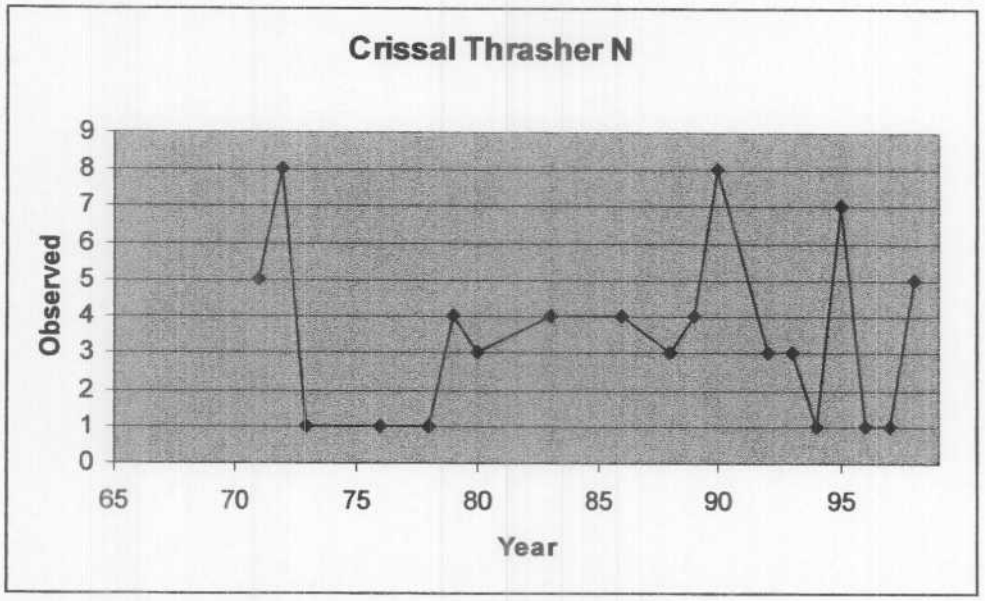
MIMIDAE



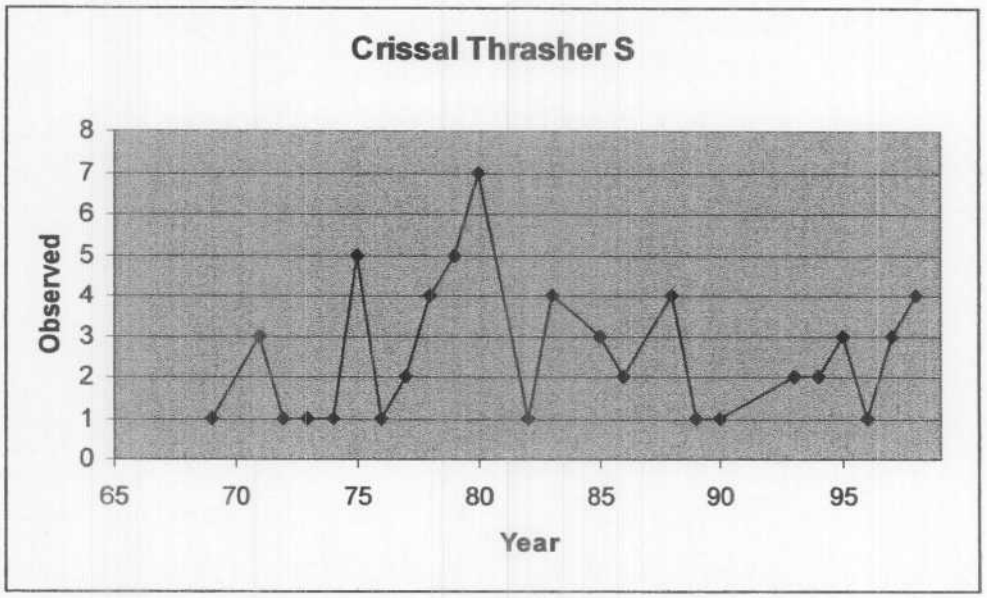
Mean 232 Standard Deviation 115



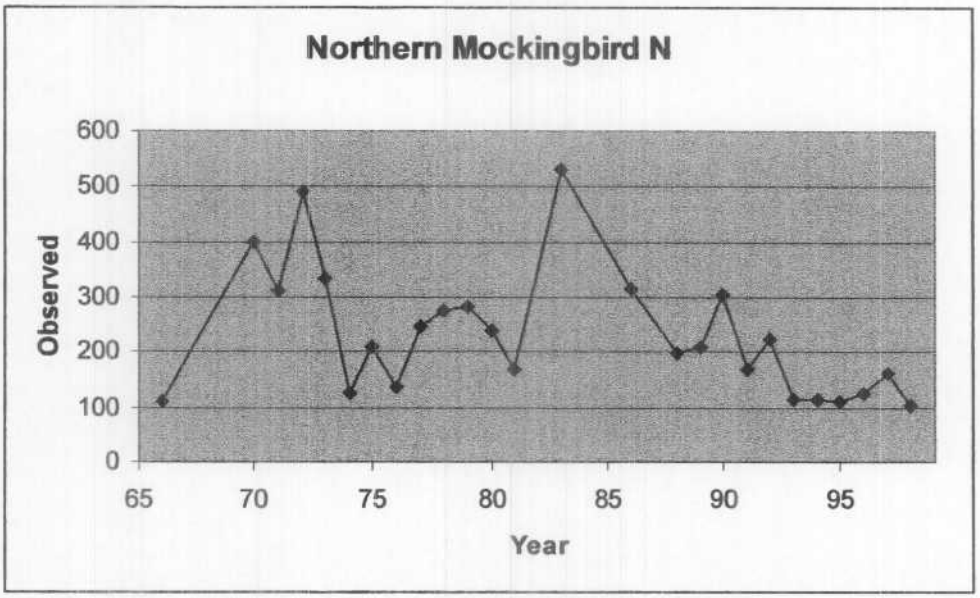
Mean 30 Standard Deviation 13



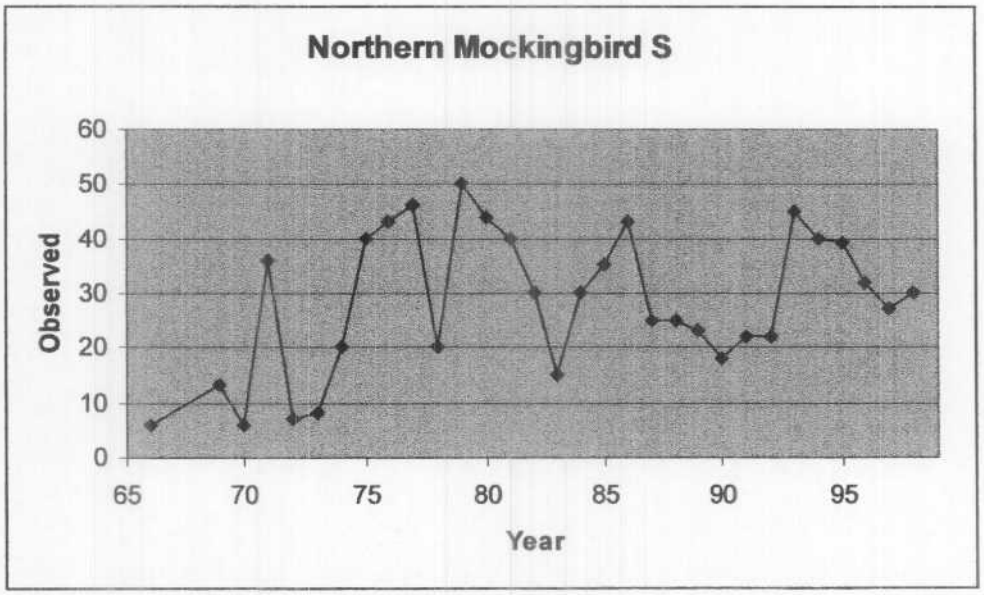
Mean 3 Standard Deviation 2



Mean 2 Standard Deviation 1

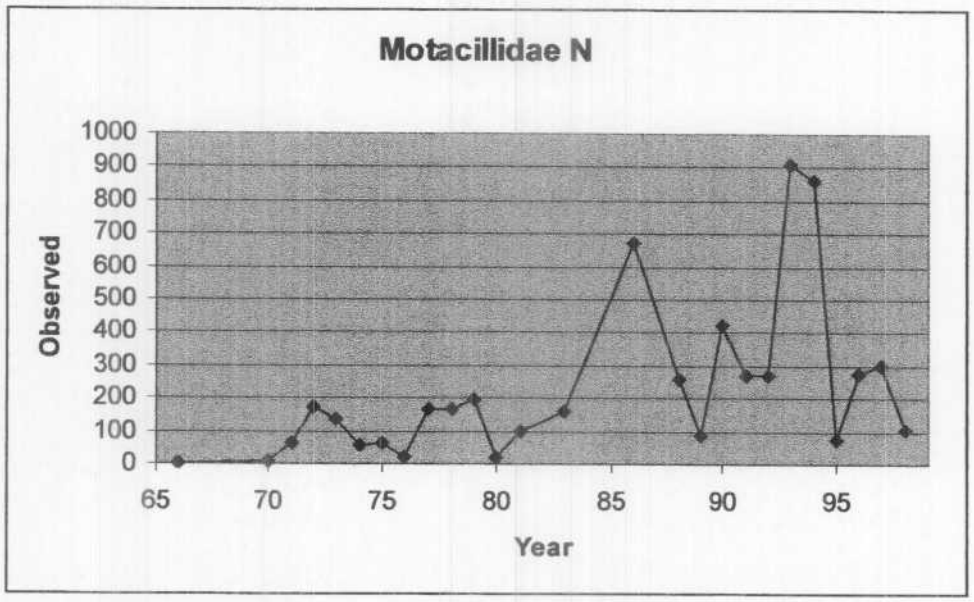


Mean 229 Standard Deviation 114

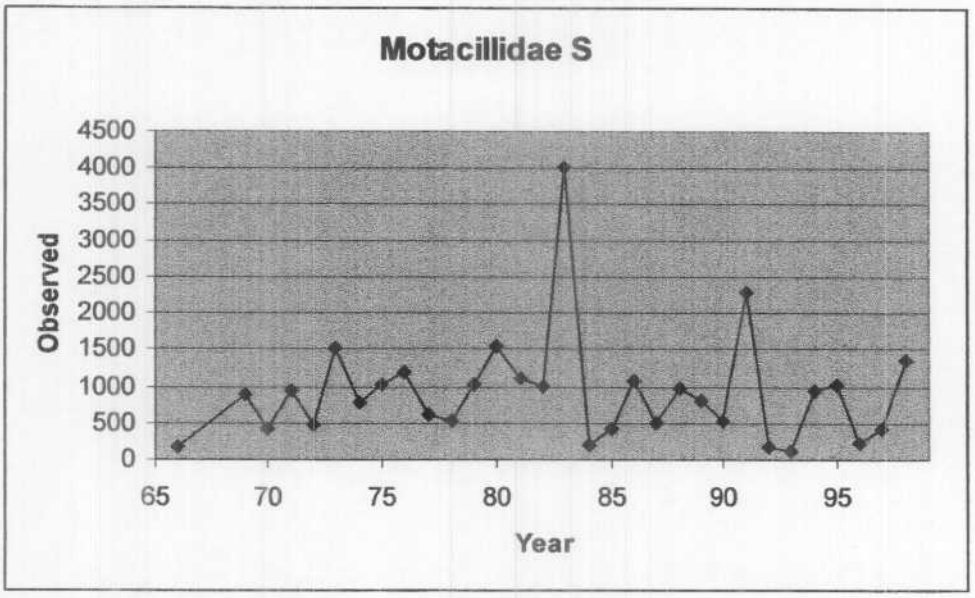


Mean 28 Standard Deviation 12

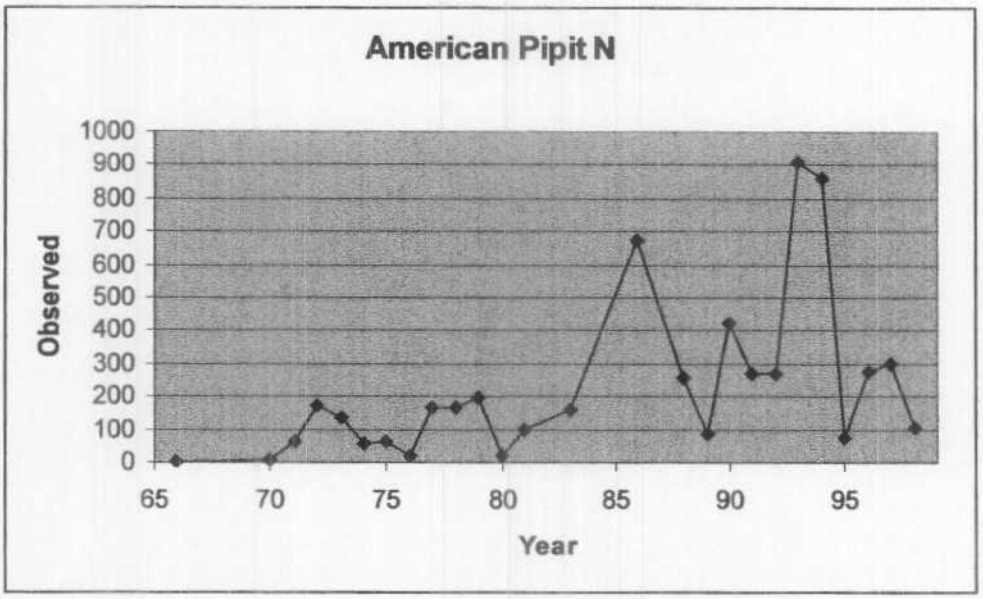
MOTACILLIDAE



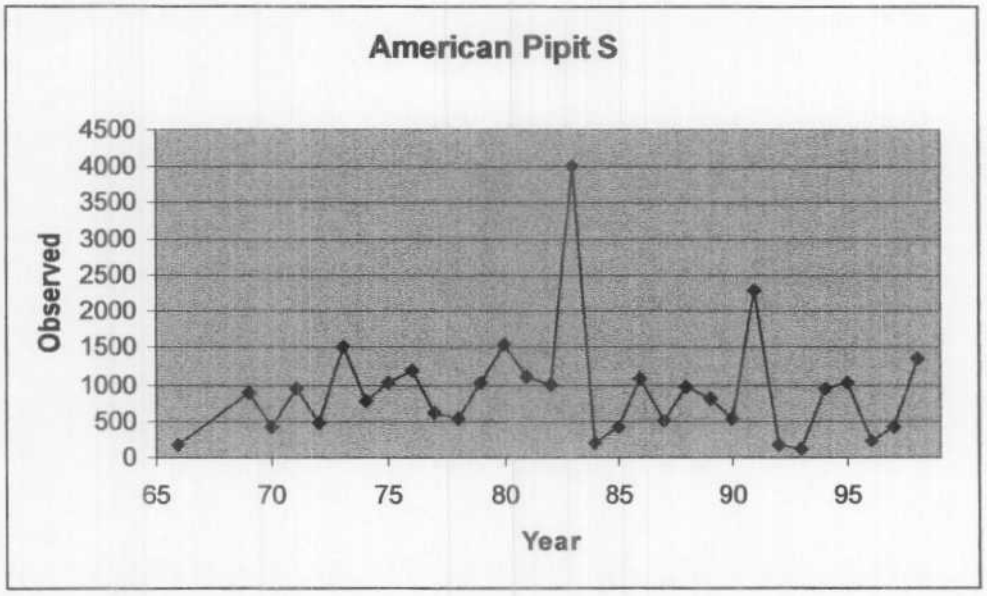
Mean 223 Standard Deviation 238



Mean 901 Standard Deviation 737

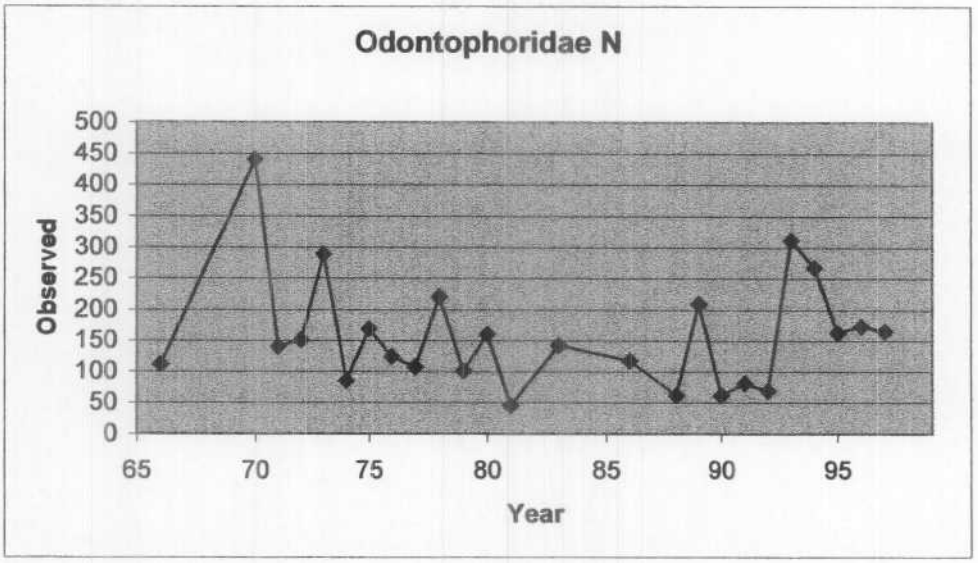


Mean 223 Standard Deviation 238

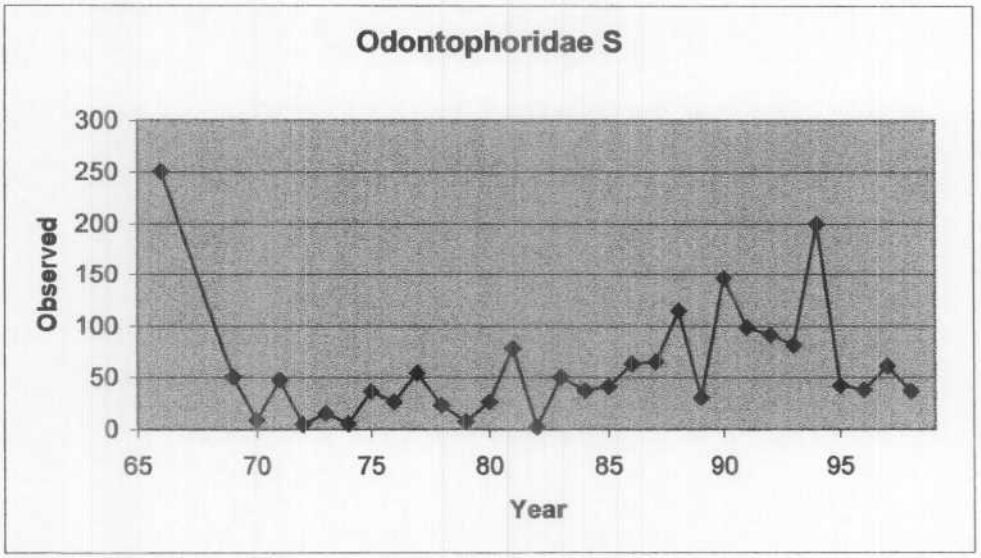


Mean 901 Standard Deviation 737

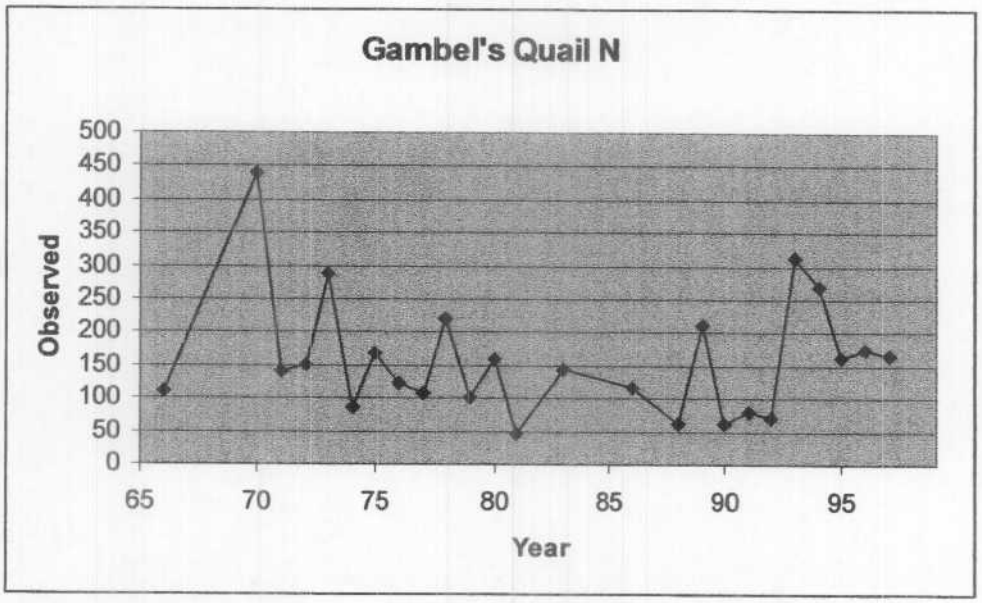
ODONTOPHORIDAE



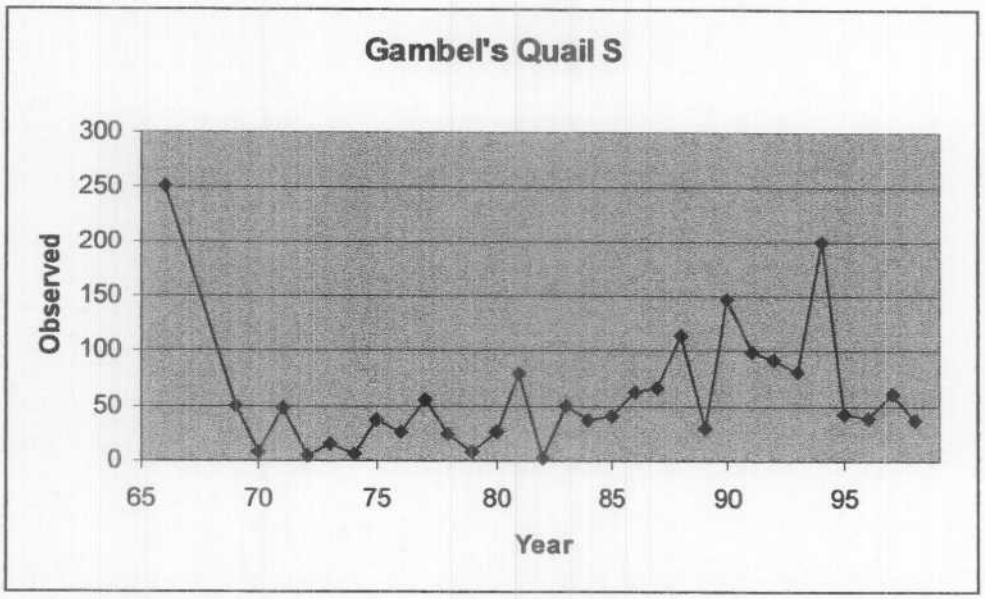
Mean 158 Standard Deviation 89



Mean 58 Standard Deviation 55

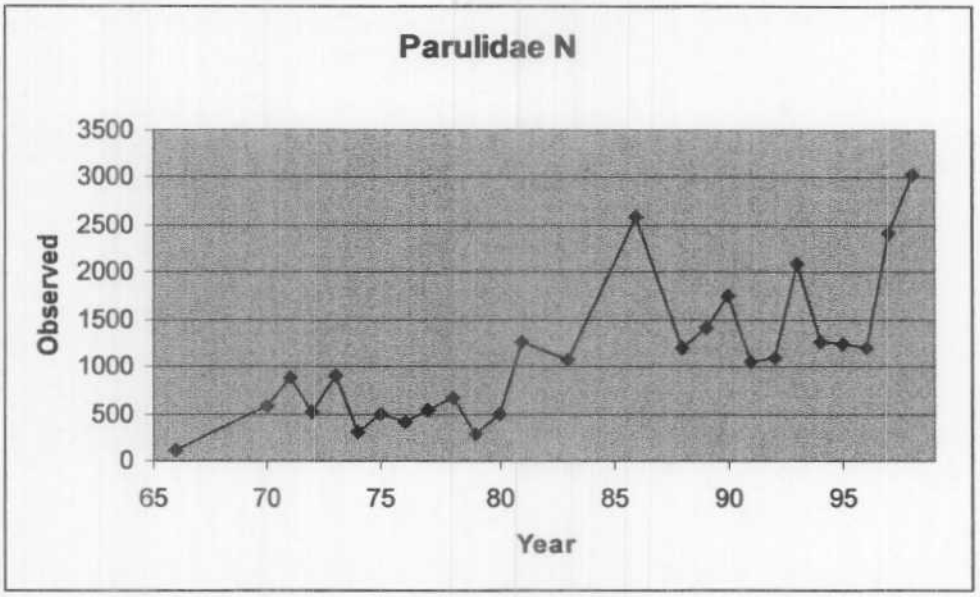


Mean 158 Standard Deviation 89

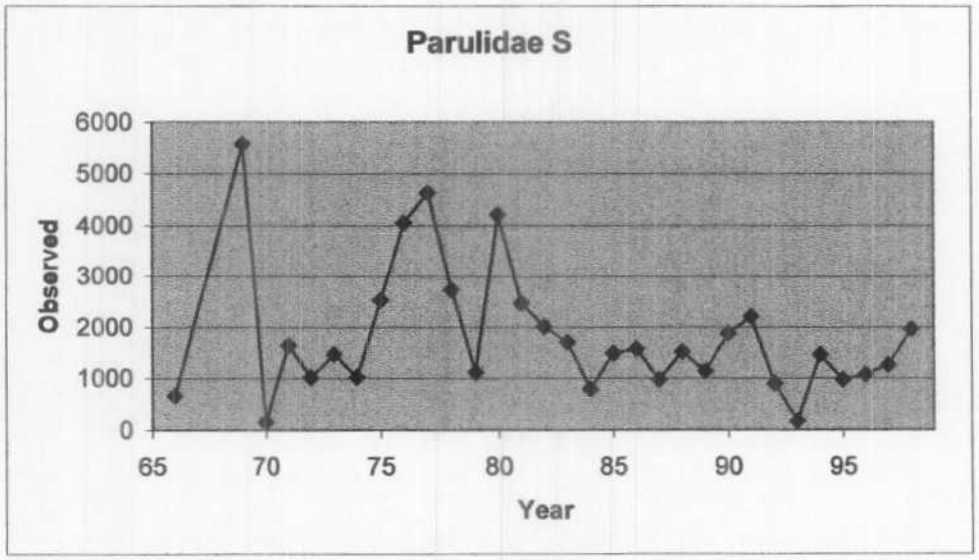


Mean 58 Standard Deviation 55

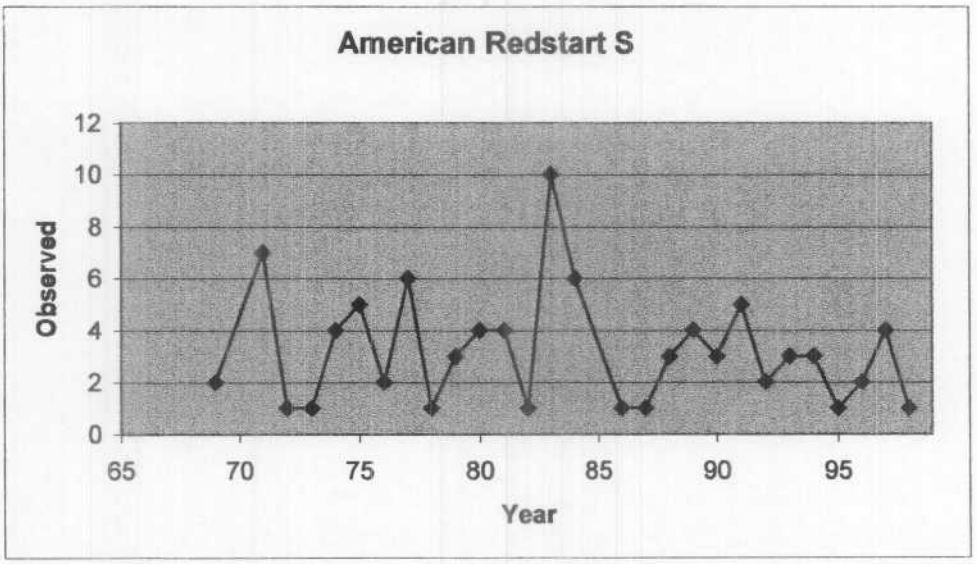
PARULIDAE



Mean 1104 Standard Deviation 734

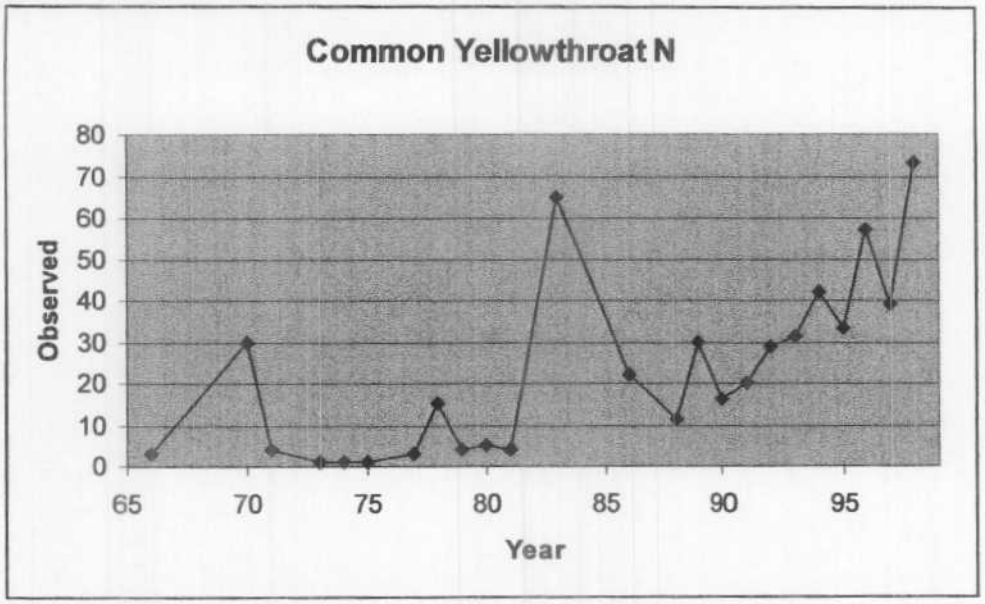


Mean 1469 Standard Deviation 1090

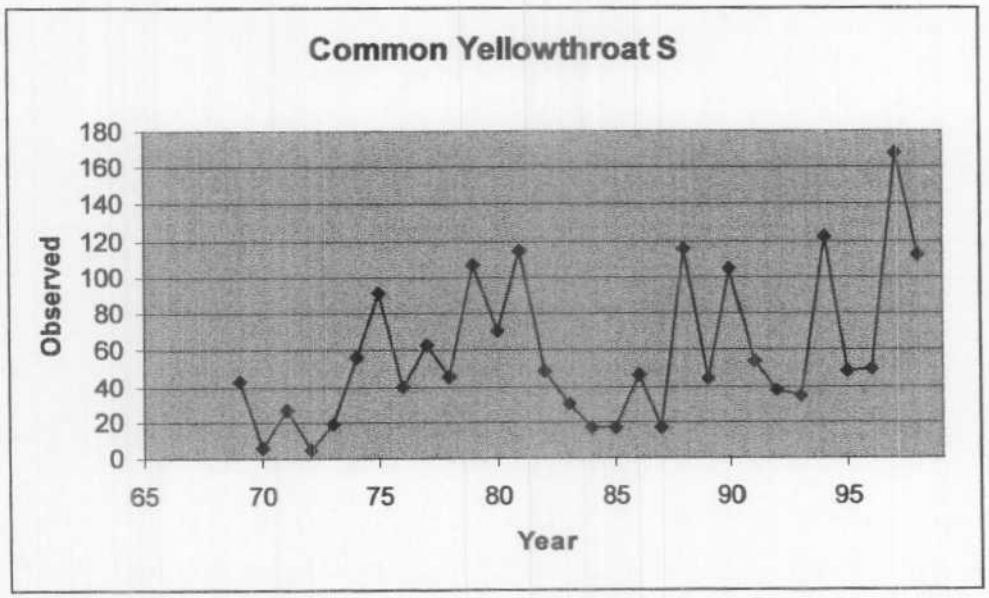


Mean 3

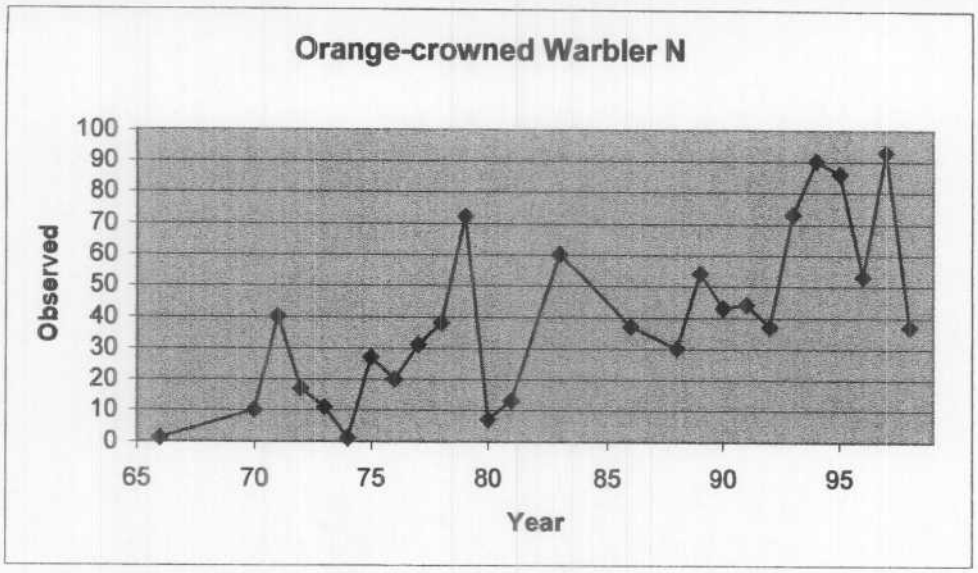
Standard Deviation 2



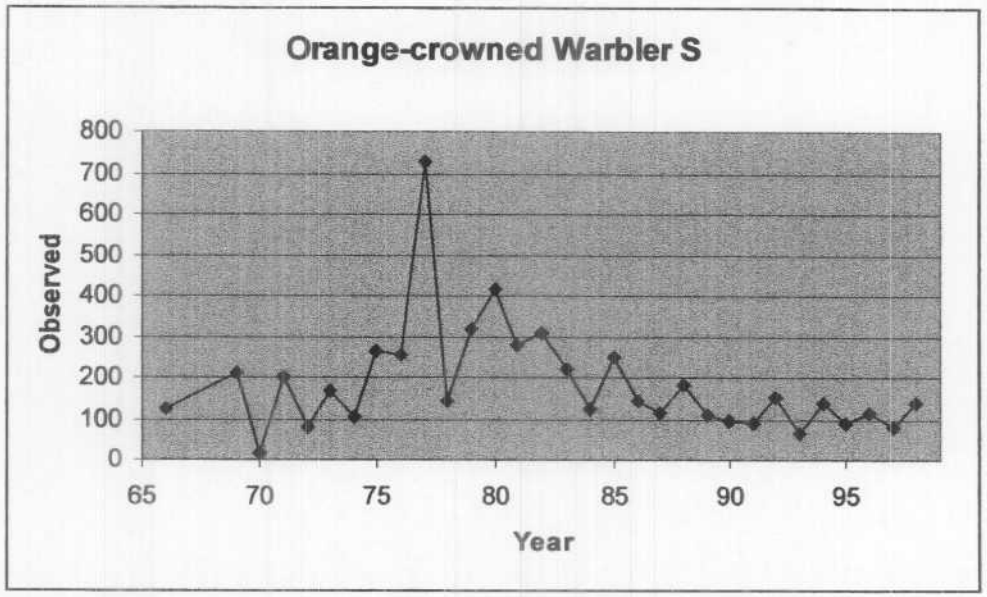
Mean 22 Standard Deviation 20



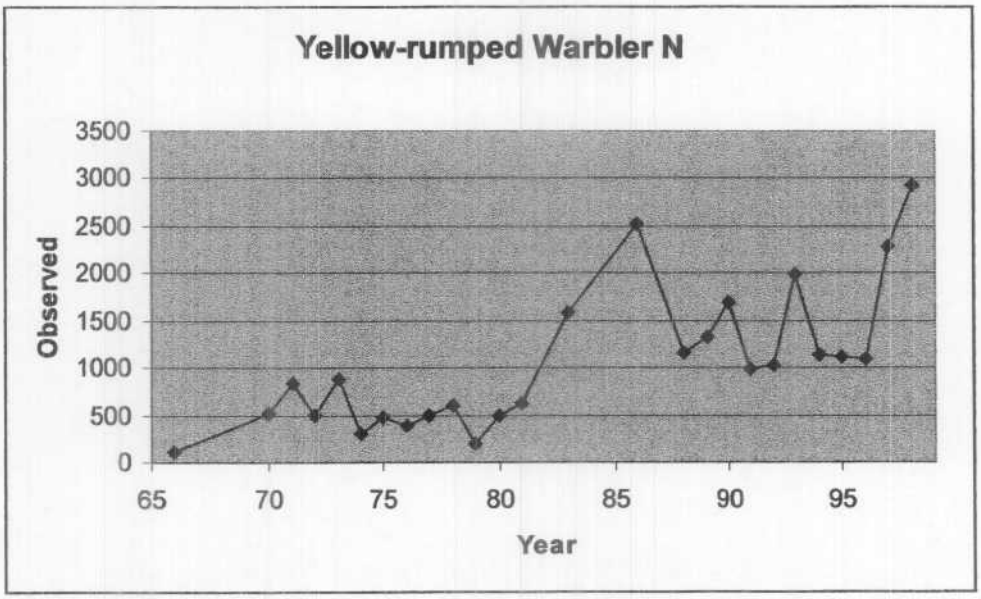
Mean 58 Standard Deviation 39



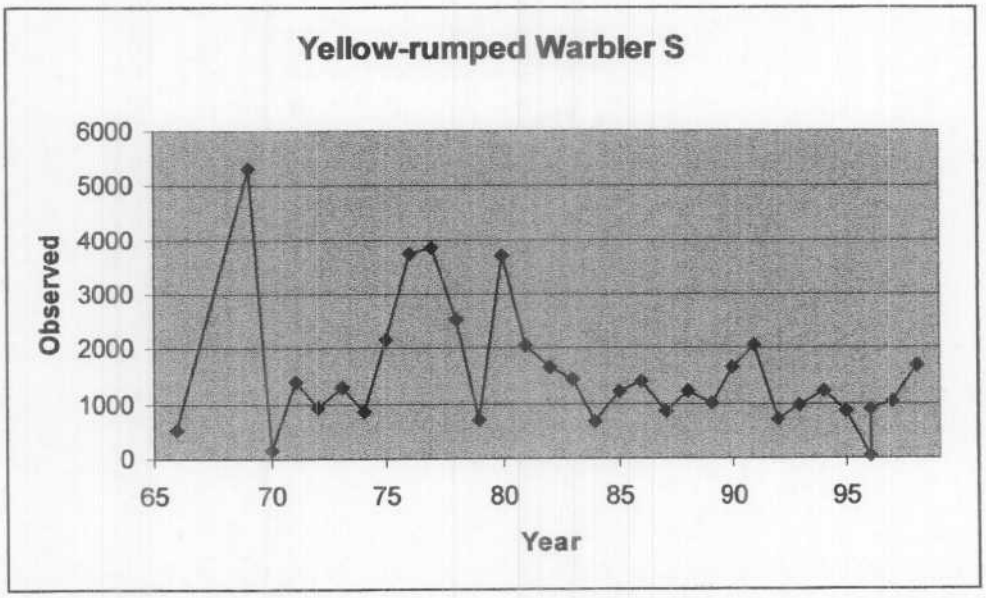
Mean 39 Standard Deviation 26



Mean 183 Standard Deviation 131

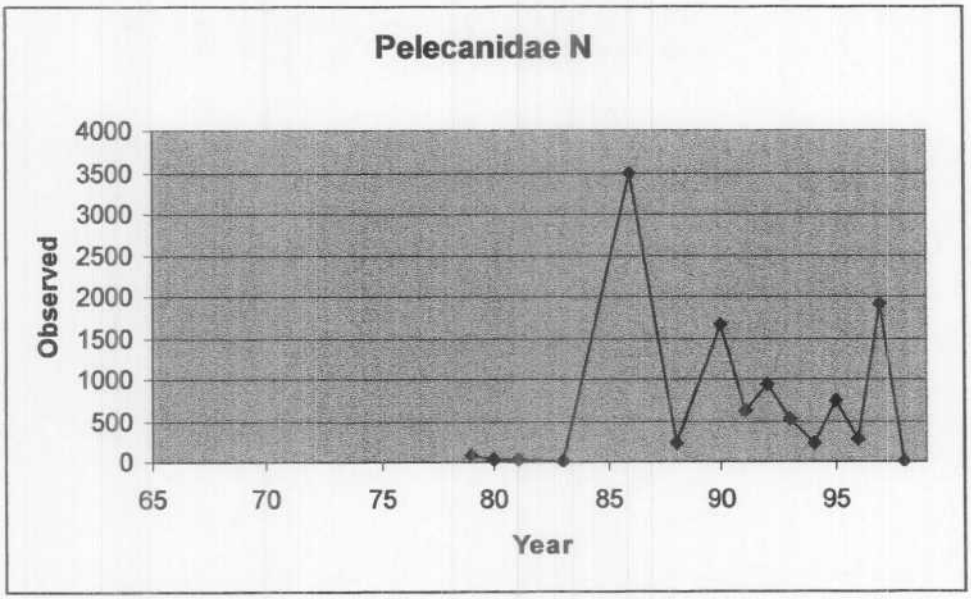


Mean 1044 Standard Deviation 721

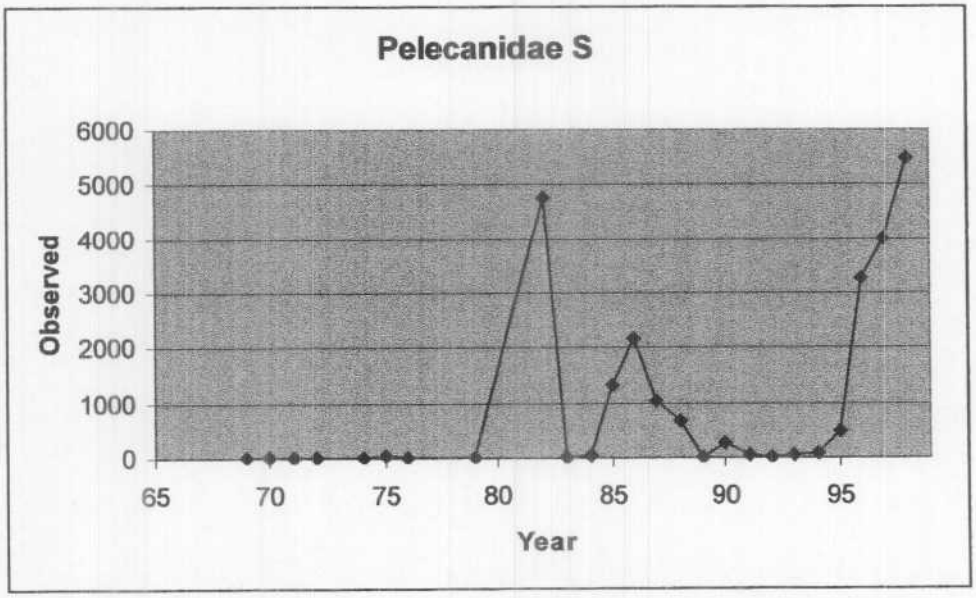


Mean 1547 Standard Deviation 1147

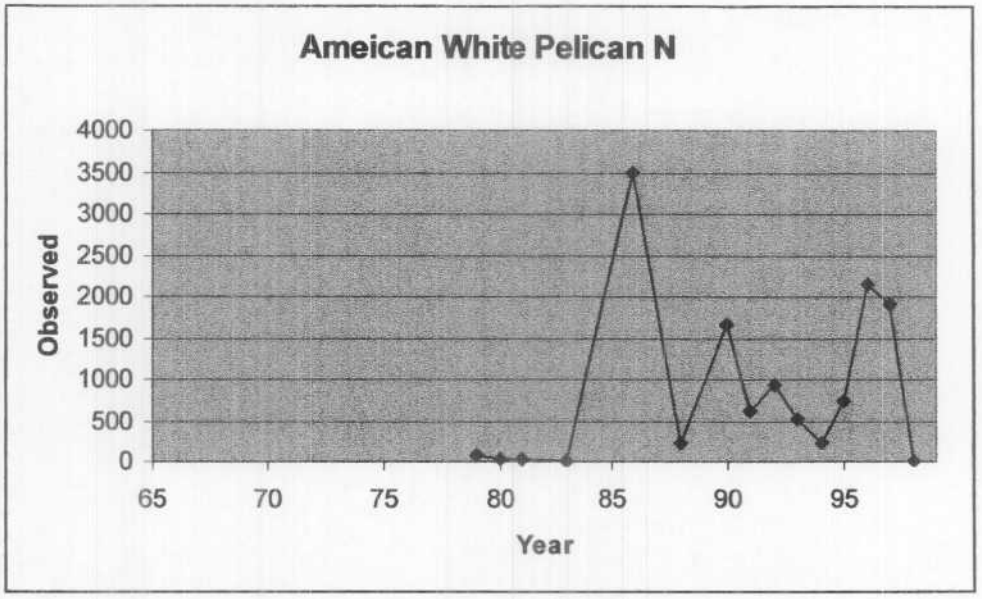
PELECANIDAE



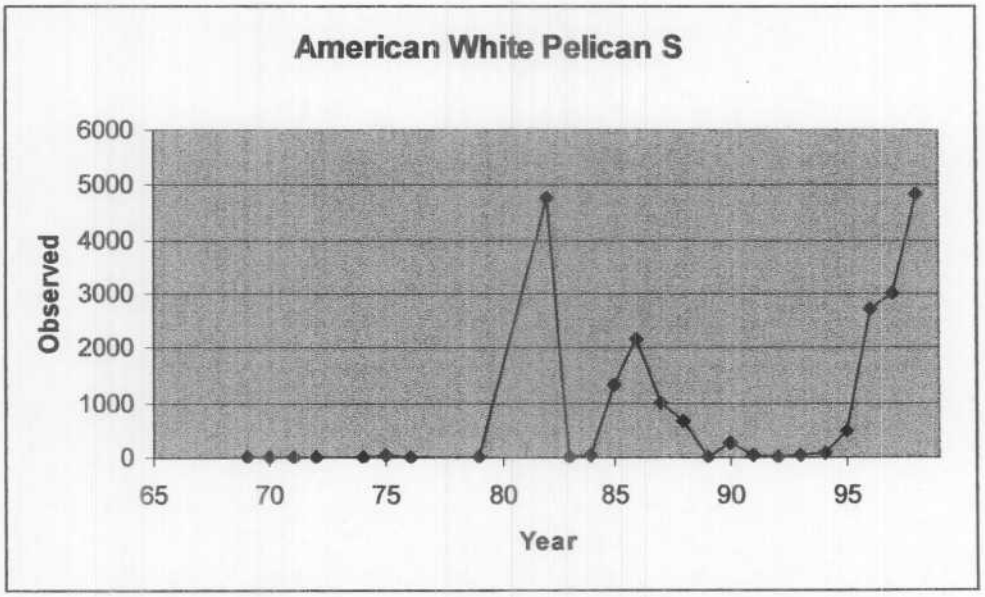
Mean 708 Standard Deviation 940



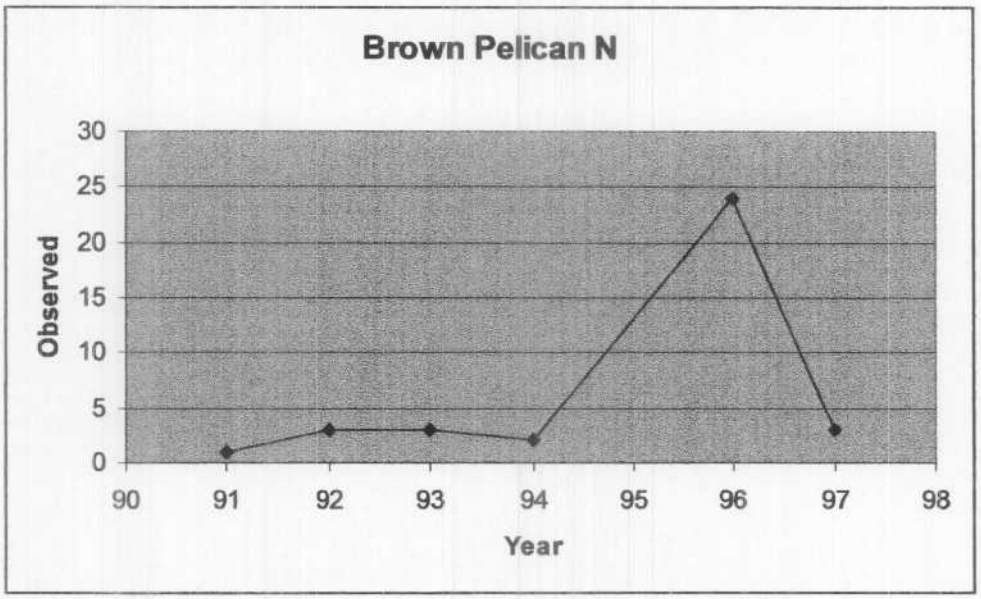
Mean 946 Standard Deviation 1613



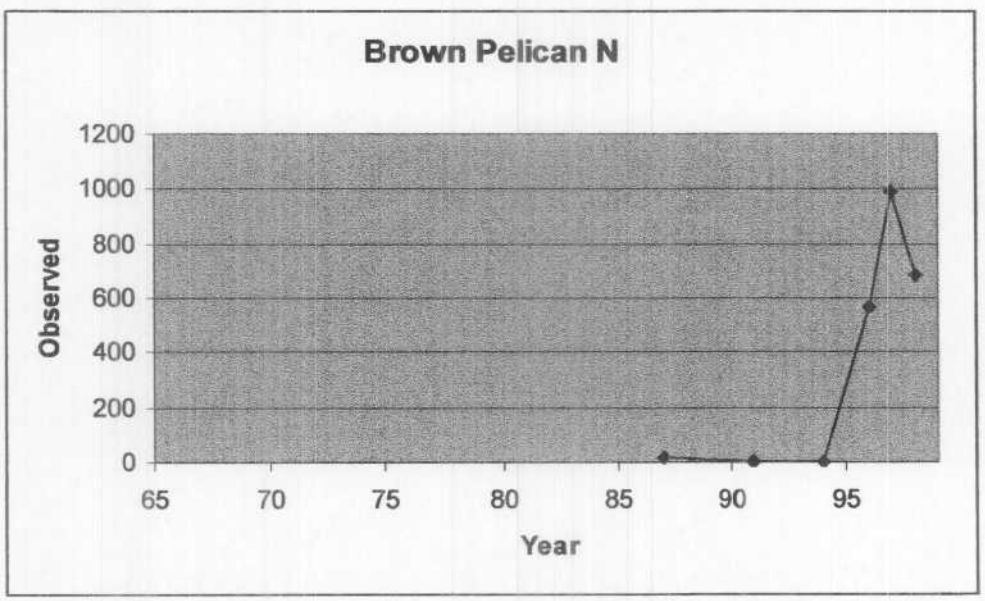
Mean 832 Standard Deviation 996



Mean 856 Standard Deviation 1439

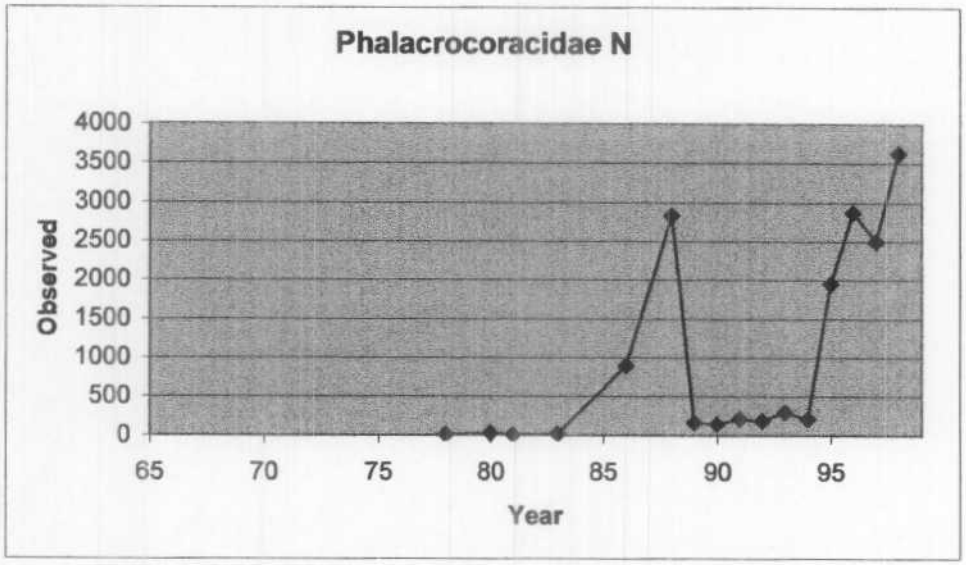


Mean 6 Standard Deviation 8

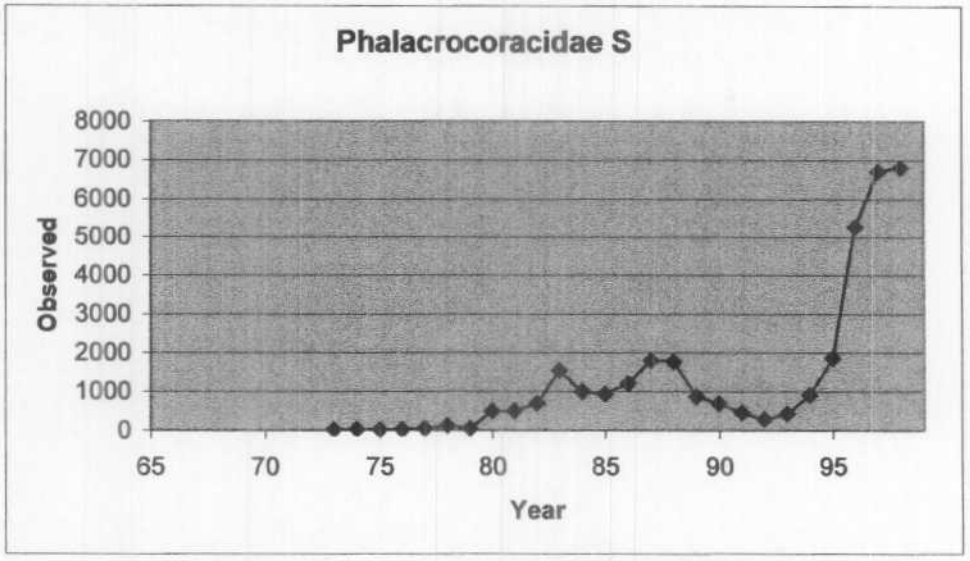


Mean 374 Standard Deviation 390

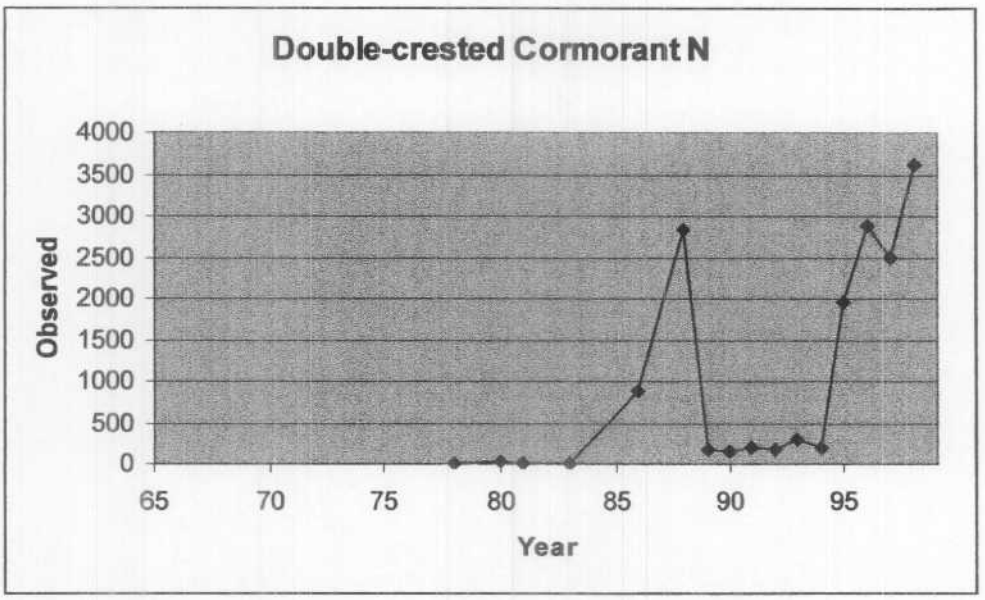
PHALACROCORACIDAE



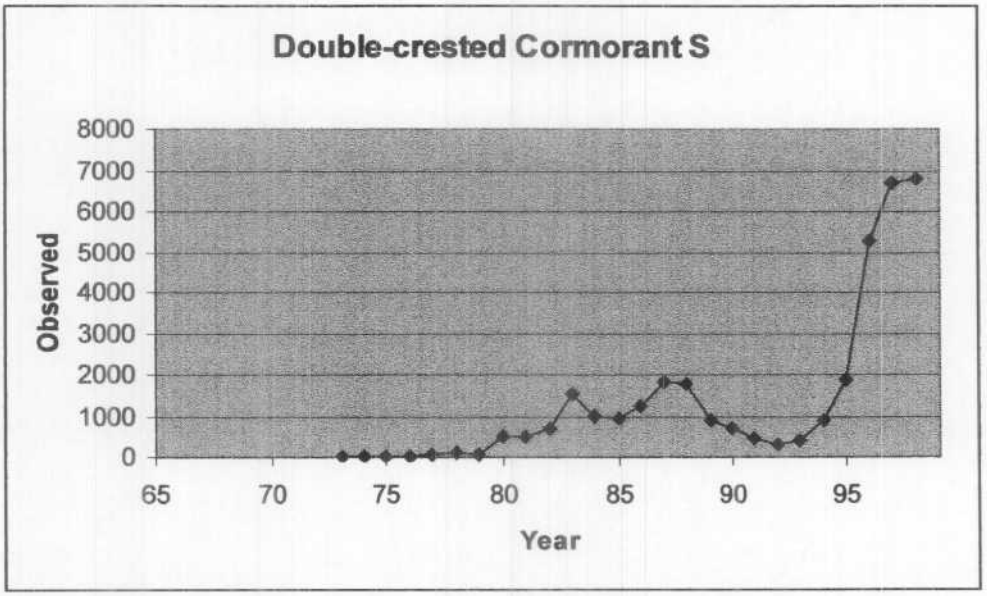
Mean 989 Standard Deviation 1241



Mean 1317 Standard Deviation 1885

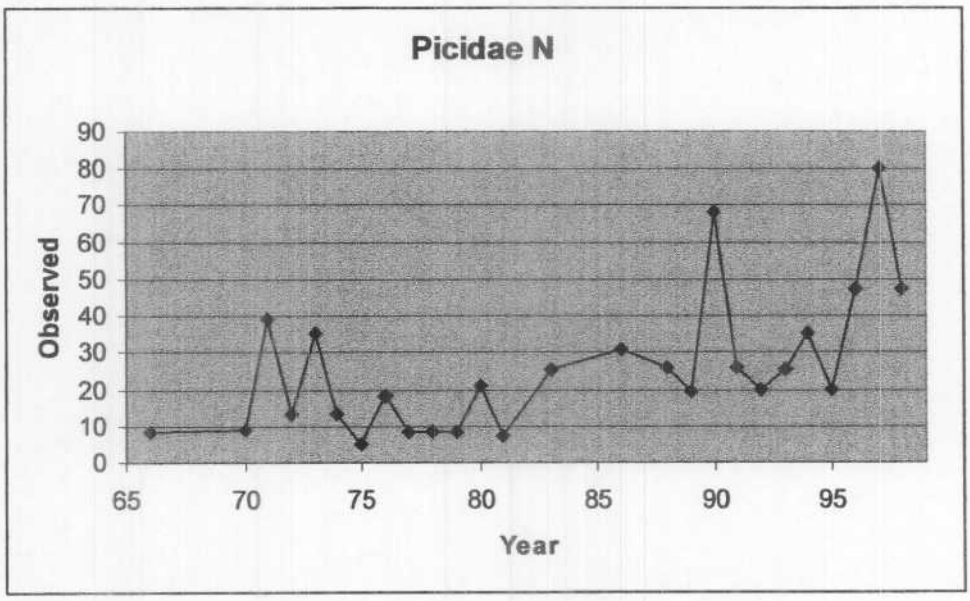


Mean 989 Standard Deviation 1241

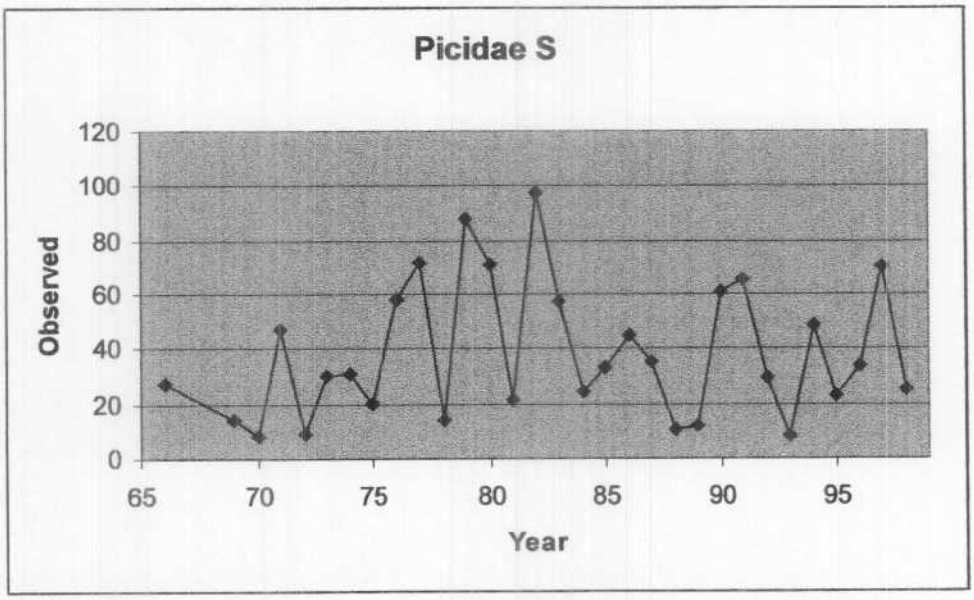


Mean 1317 Standard Deviation 1885

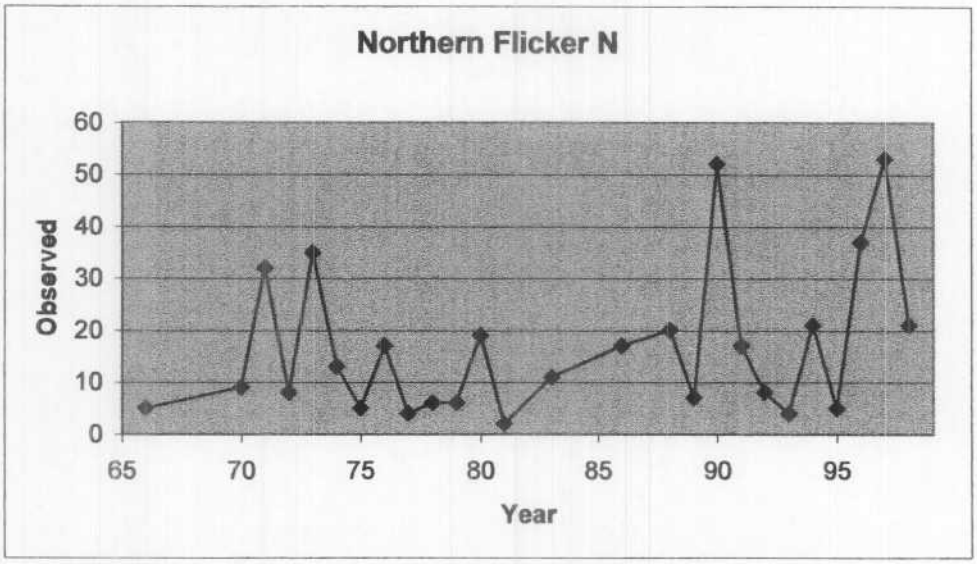
PICIDAE



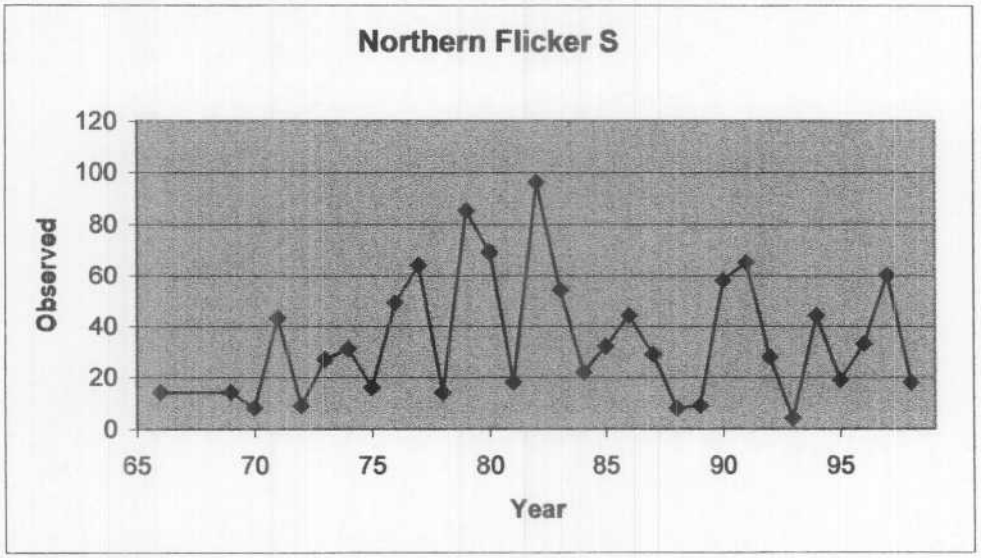
Mean 25 Standard Deviation 18



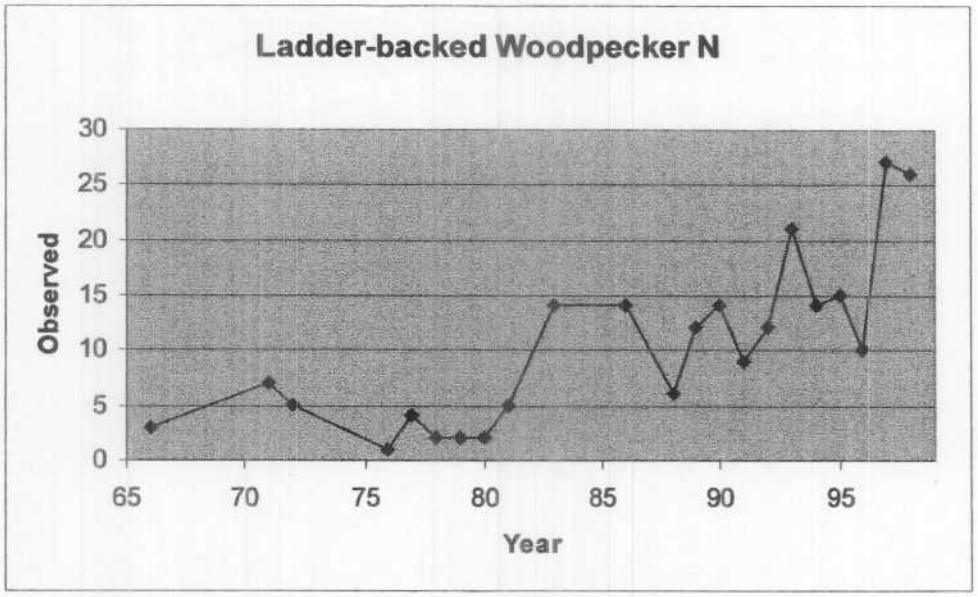
Mean 38 Standard Deviation 24



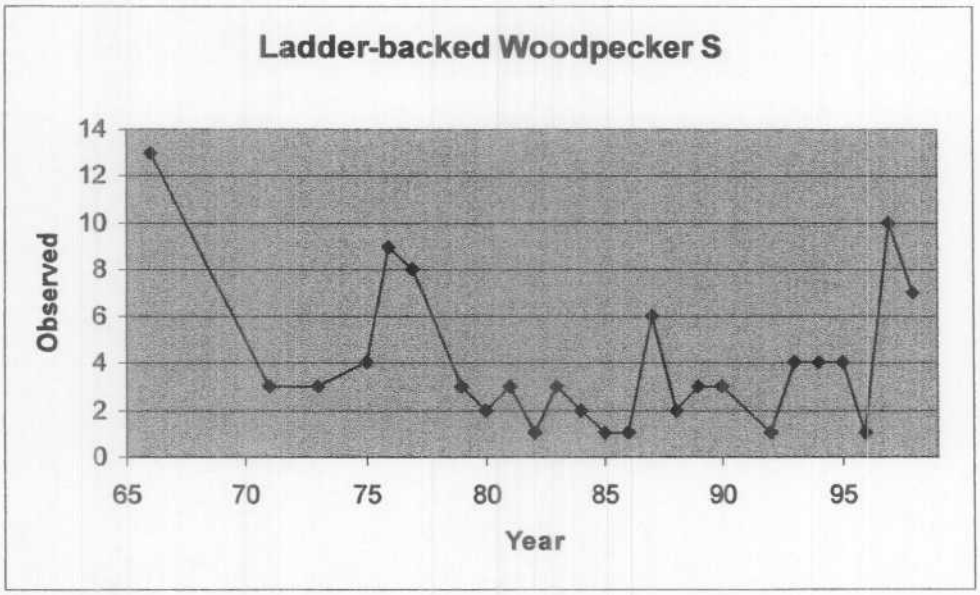
Mean 16 Standard Deviation 14



Mean 34 Standard Deviation 23

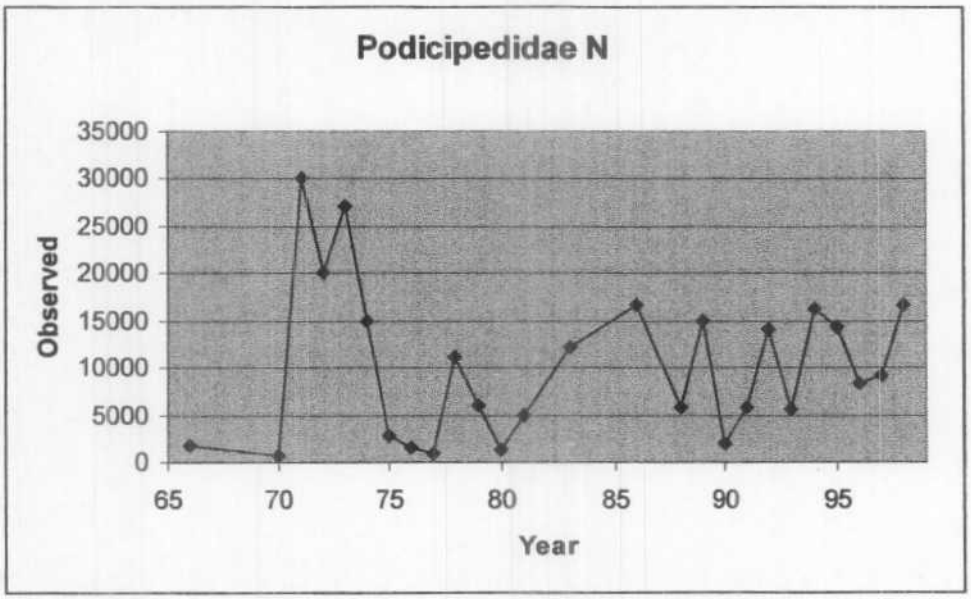


Mean 10 Standard Deviation 7

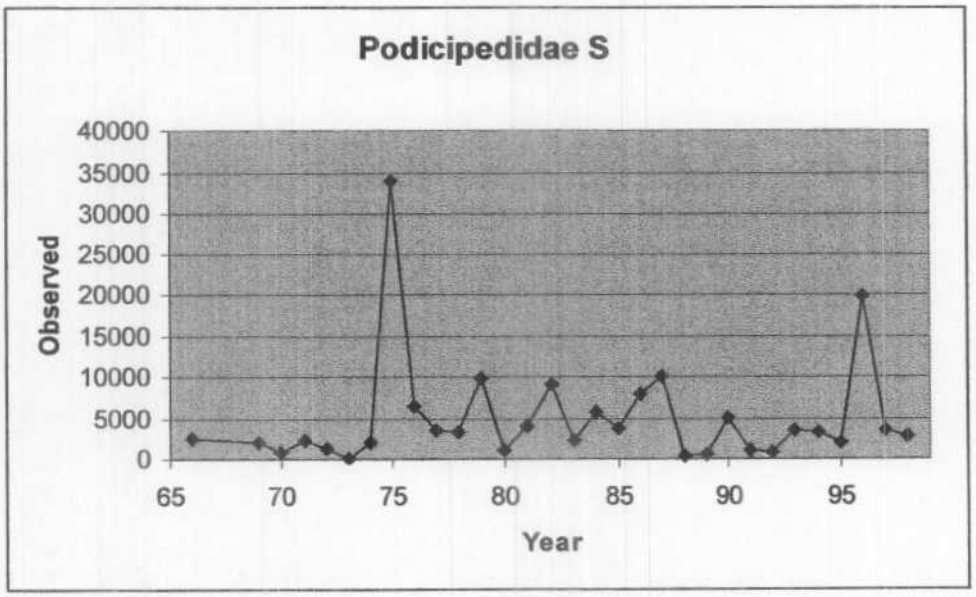


Mean 4 Standard Deviation 3

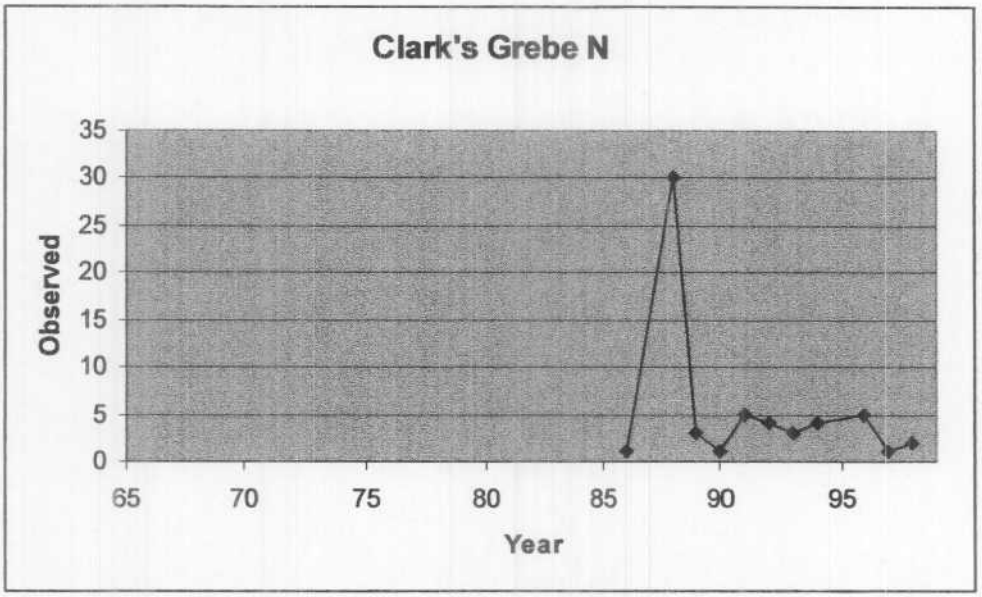
PODICIPEDIDAE



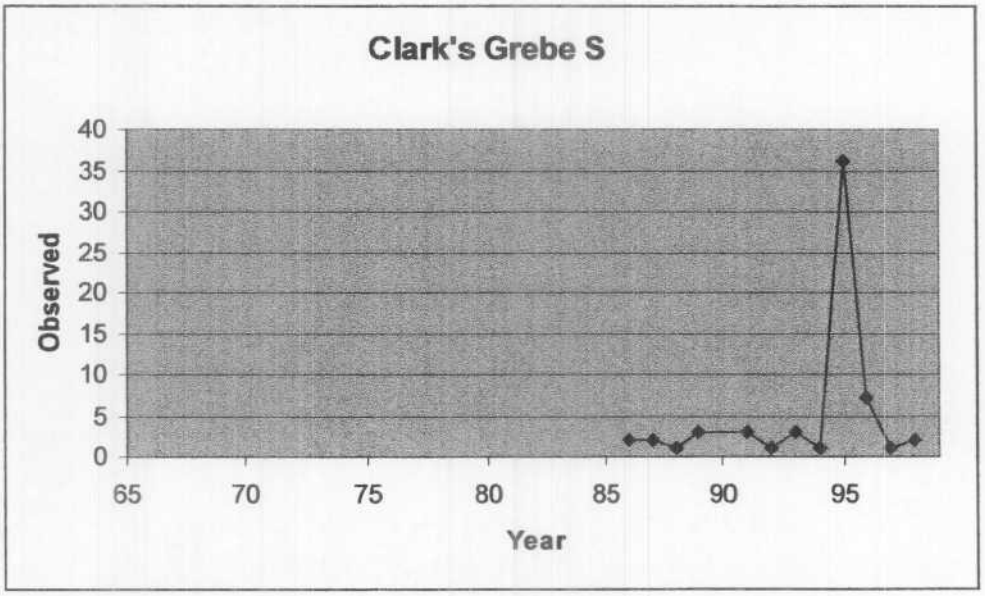
Mean 10159 Standard Deviation 7876



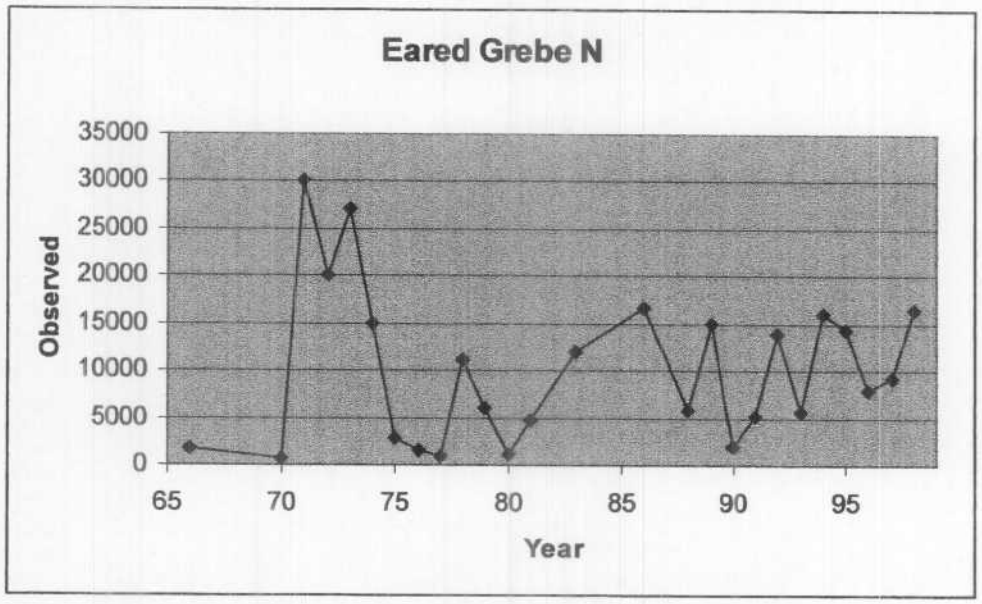
Mean 4897 Standard Deviation 6601



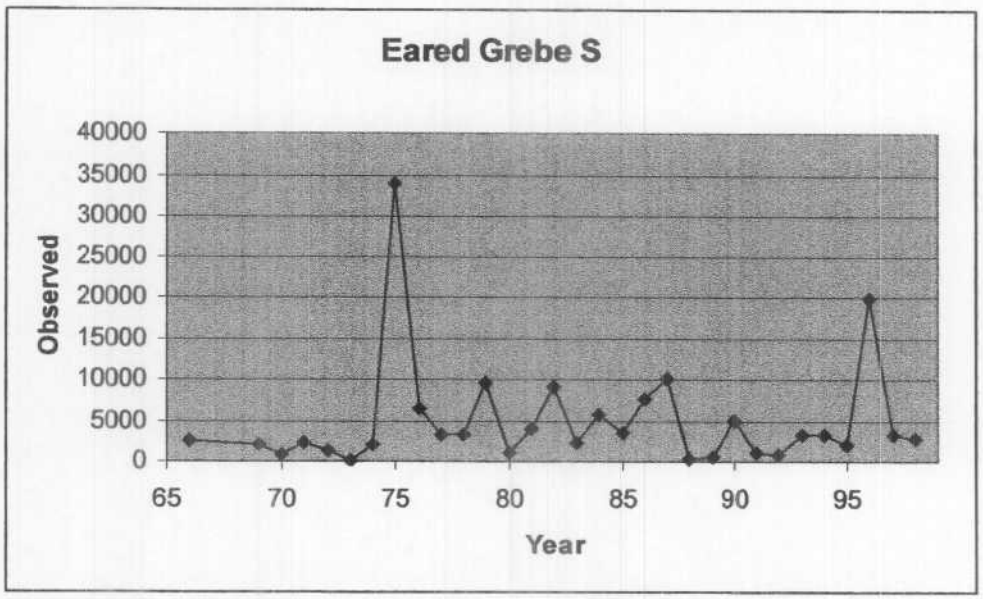
Mean 5 Standard Deviation 7



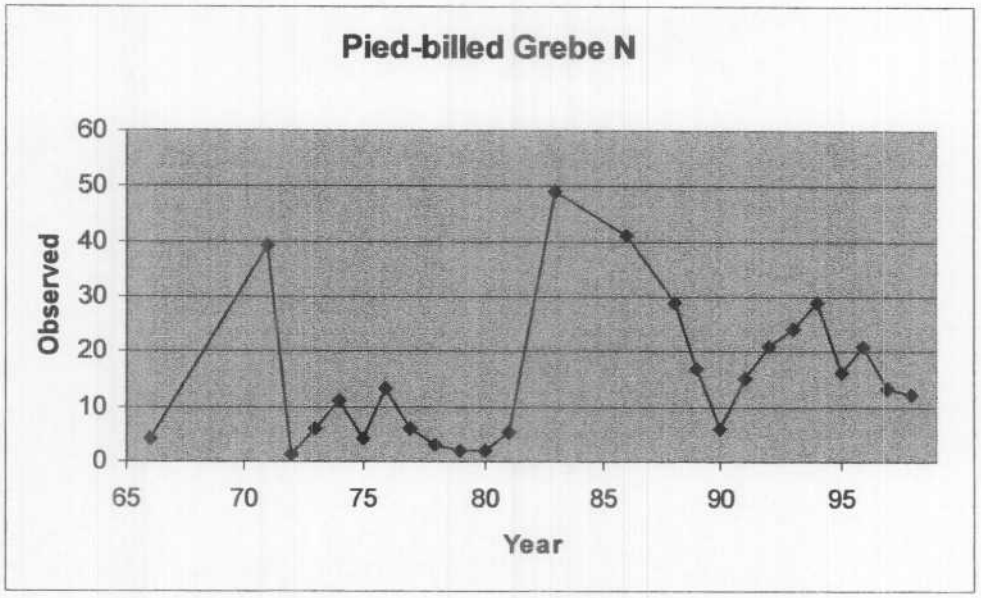
Mean 5 Standard Deviation 9



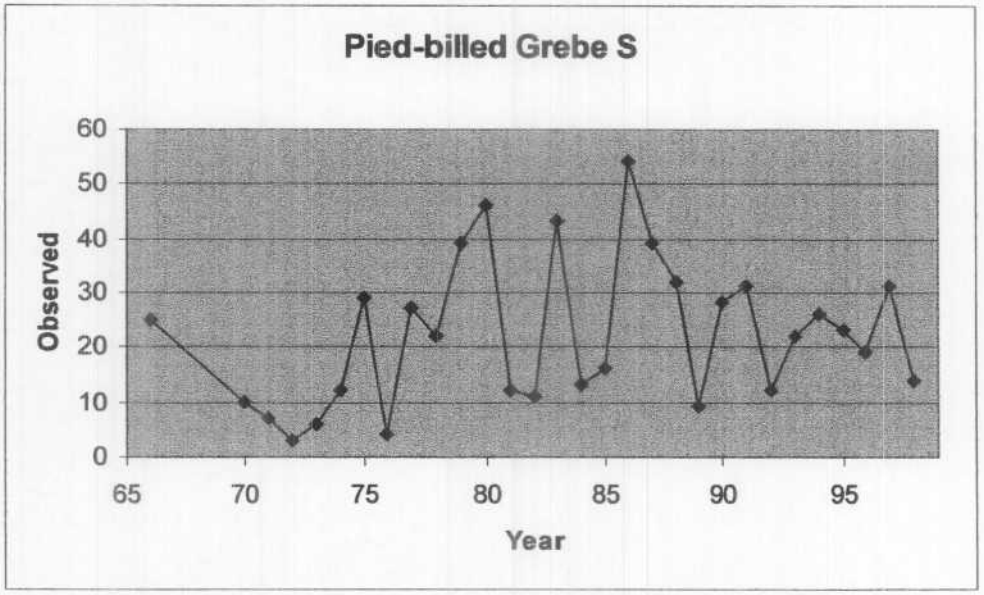
Mean 10069 Standard Deviation 7883



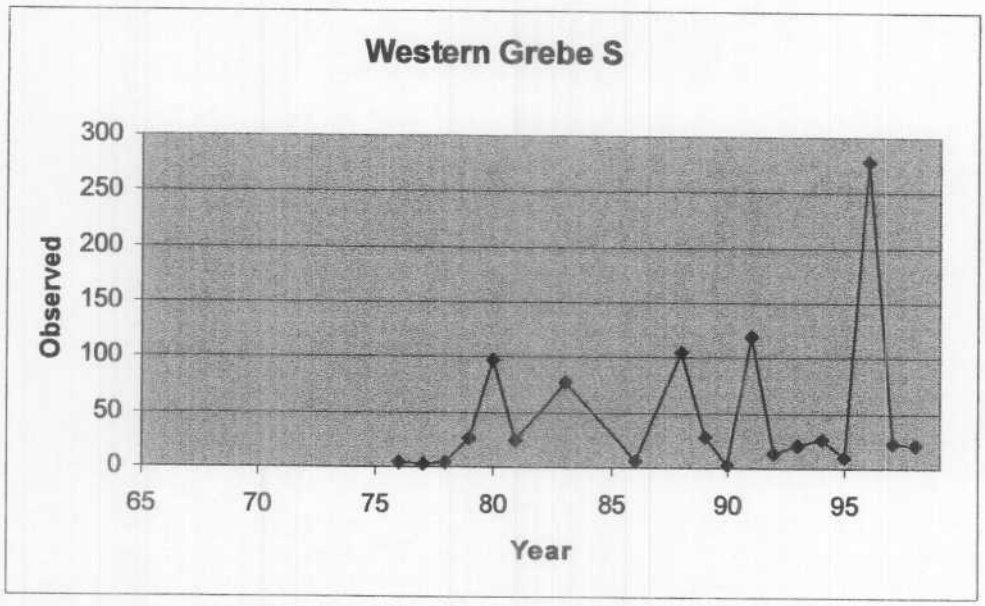
Mean 4862 Standard Deviation 6598



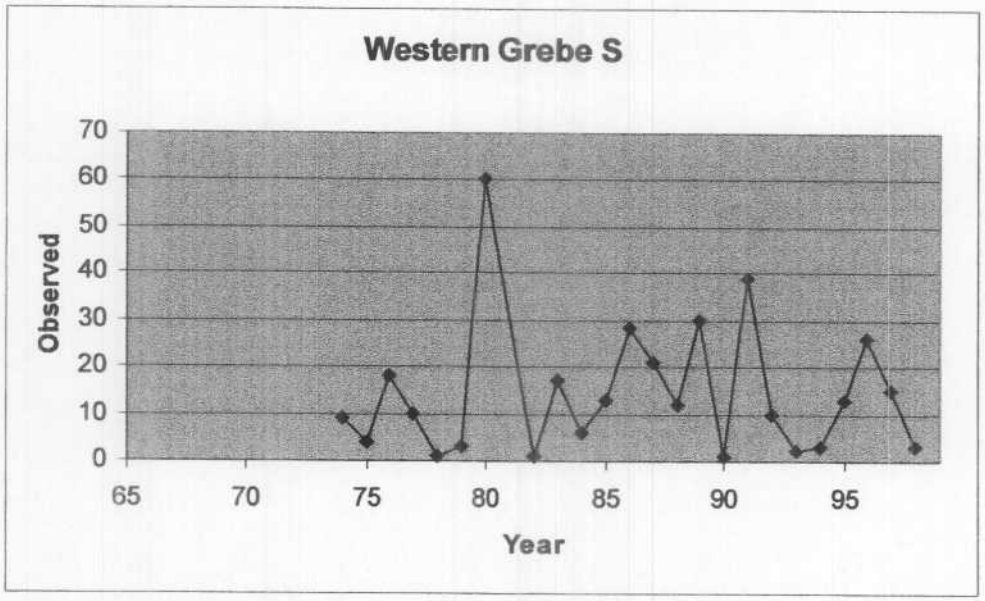
Mean 15 Standard Deviation 13



Mean 22 Standard Deviation 13

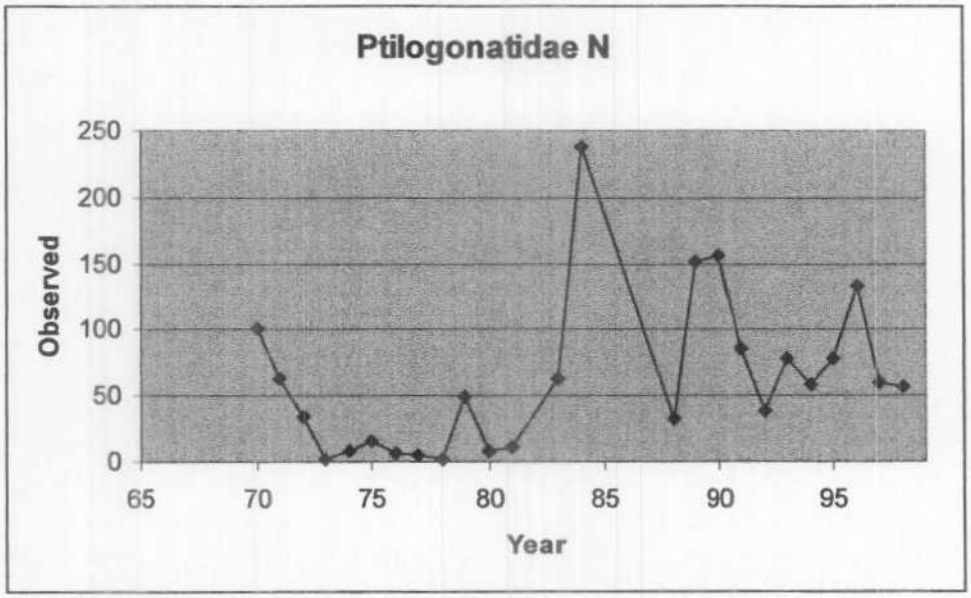


Mean 46 Standard Deviation 65

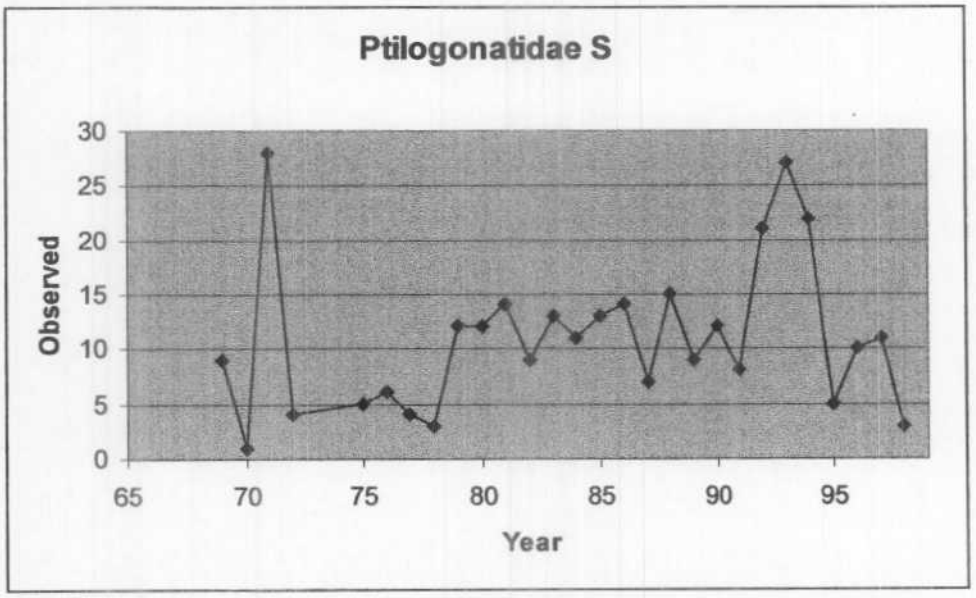


Mean 14 Standard Deviation 13

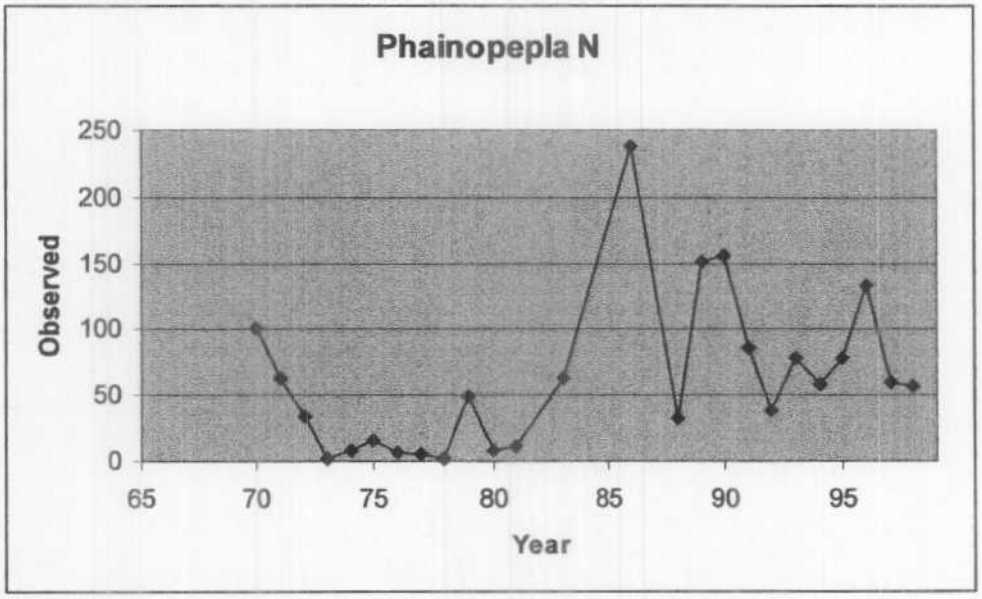
PTILOGONATIDAE



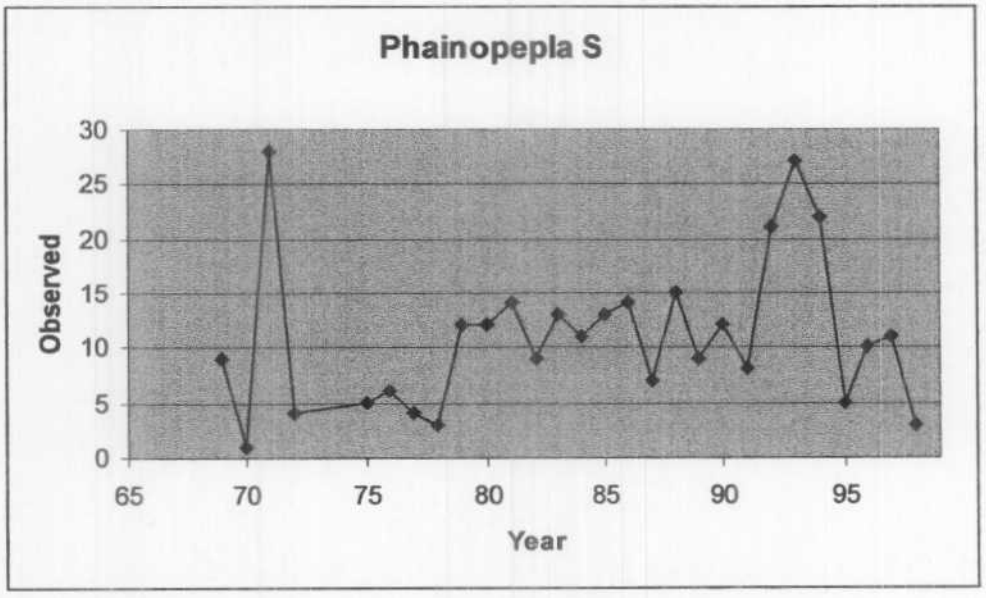
Mean 60 Standard Deviation 57



Mean 11 Standard Deviation 6

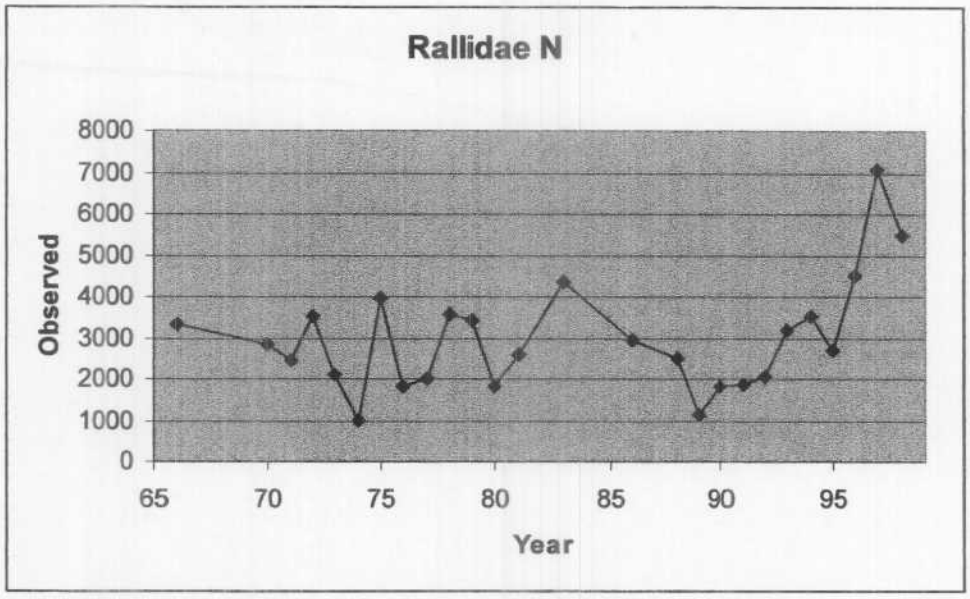


Mean 60 Standard Deviation 57

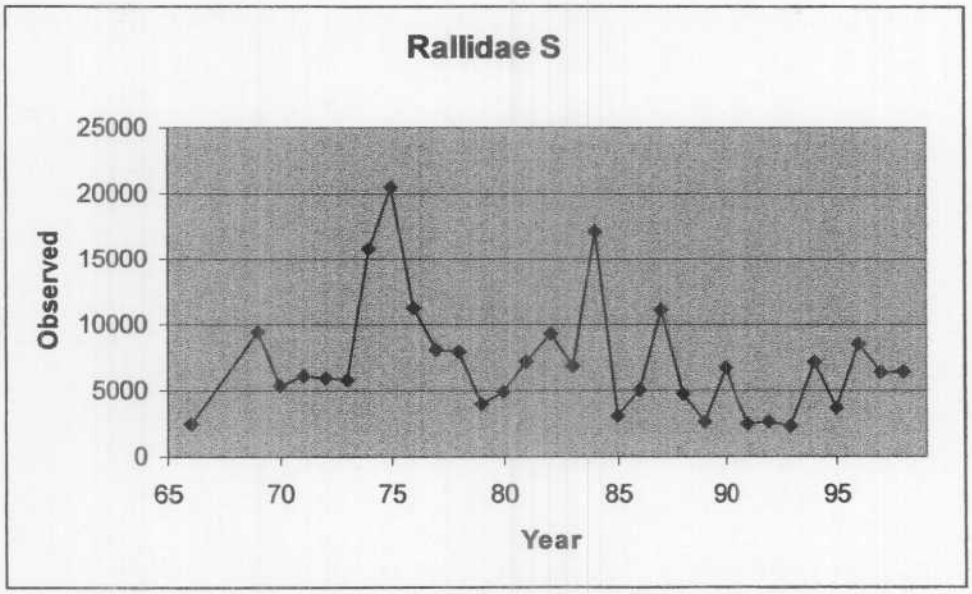


Mean 11 Standard Deviation 6

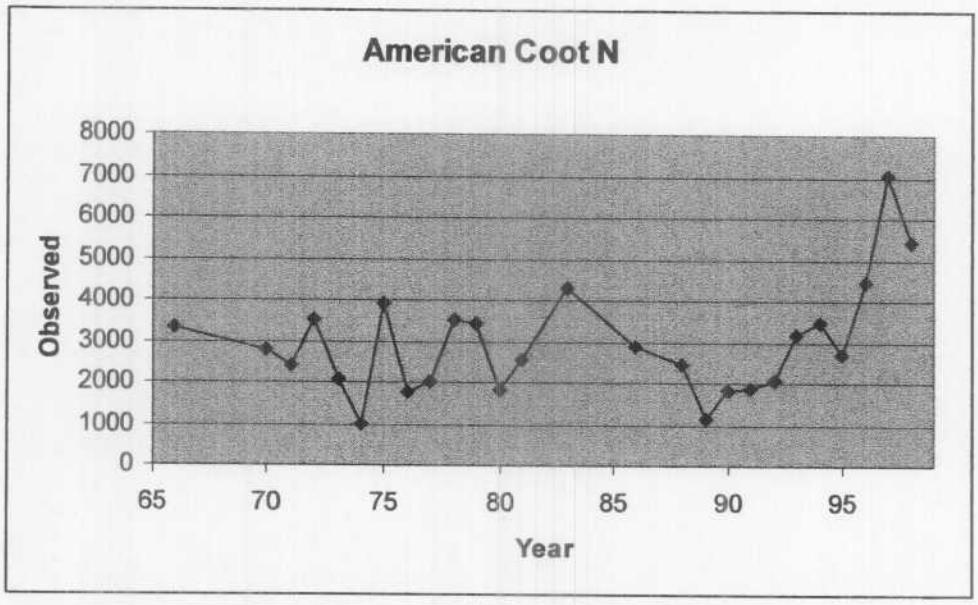
RALLIDAE



Mean 2969 Standard Deviation 1317

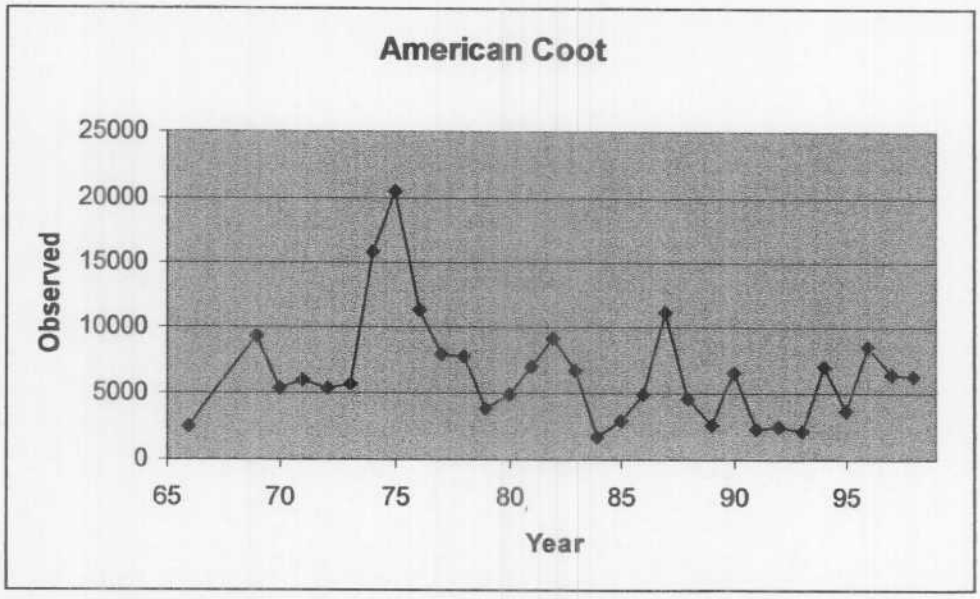


Mean 7073 Standard Deviation 4306



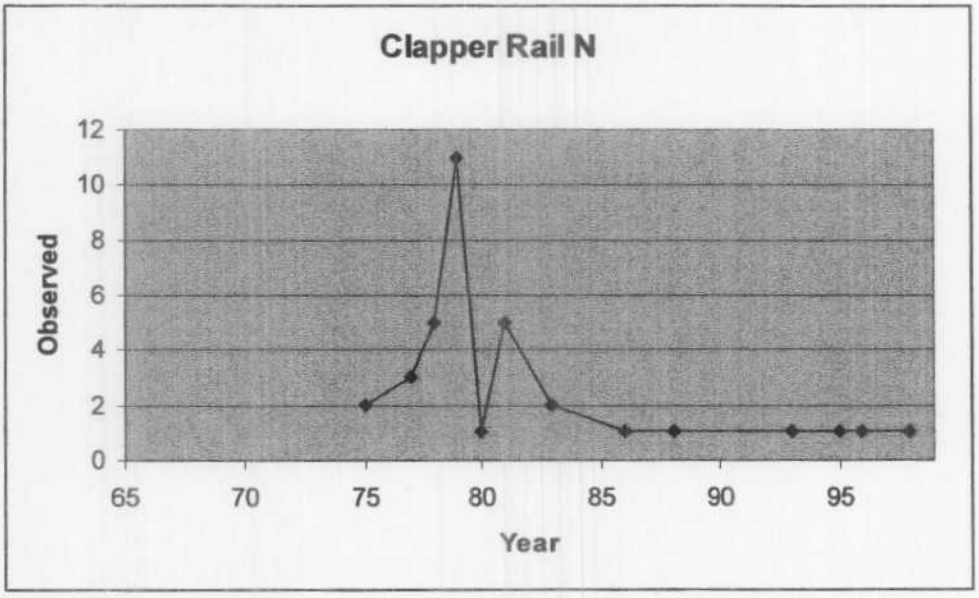
Mean 2944

Standard Deviation 1309

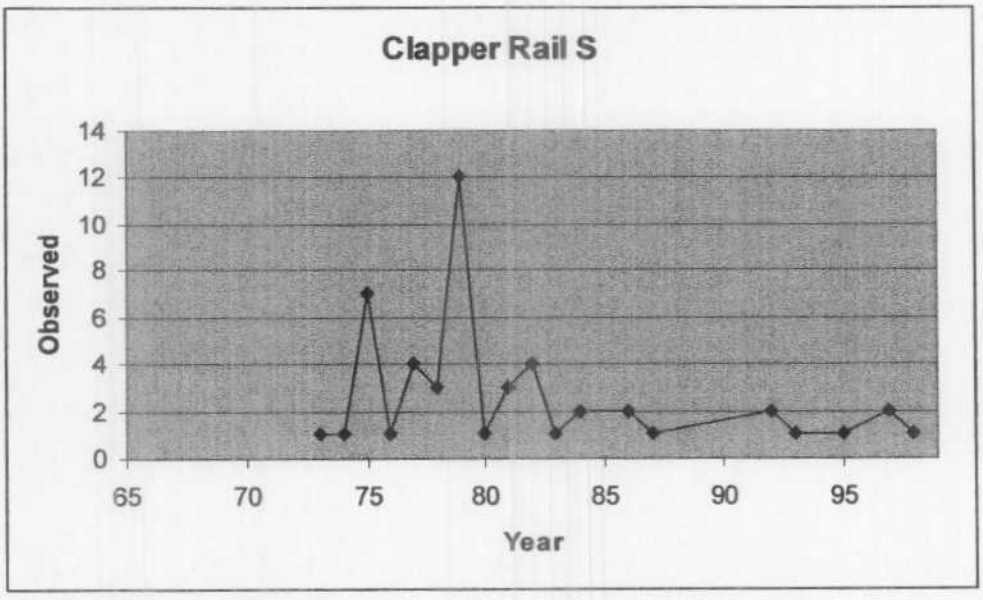


Mean 6508

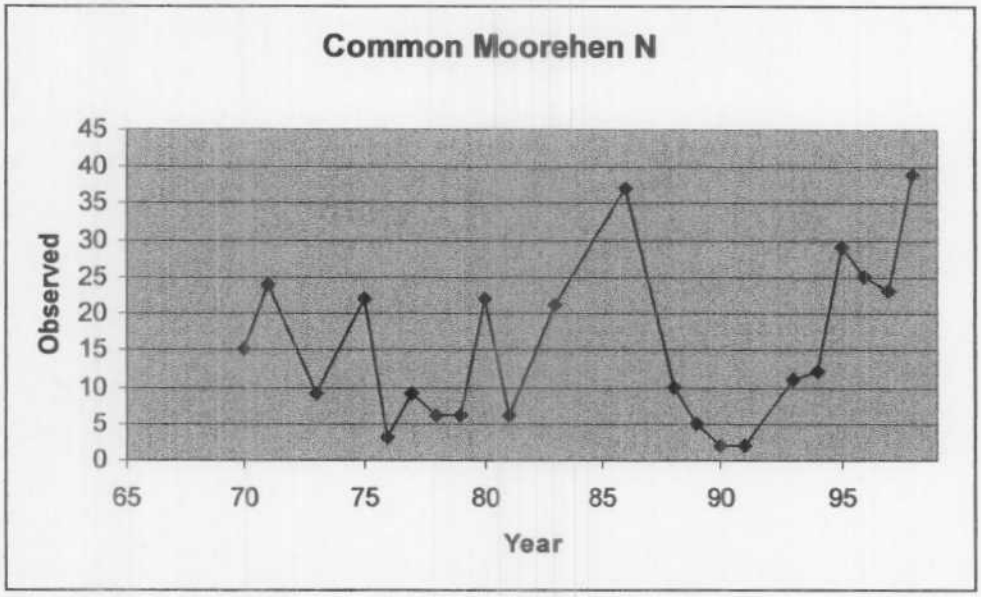
Standard Deviation 3989



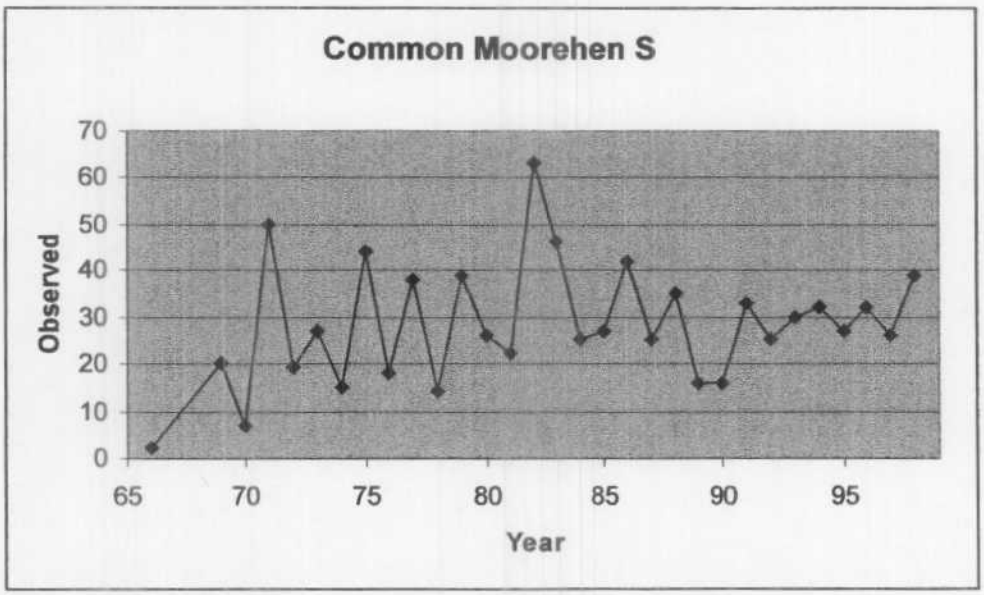
Mean 2 Standard Deviation 2



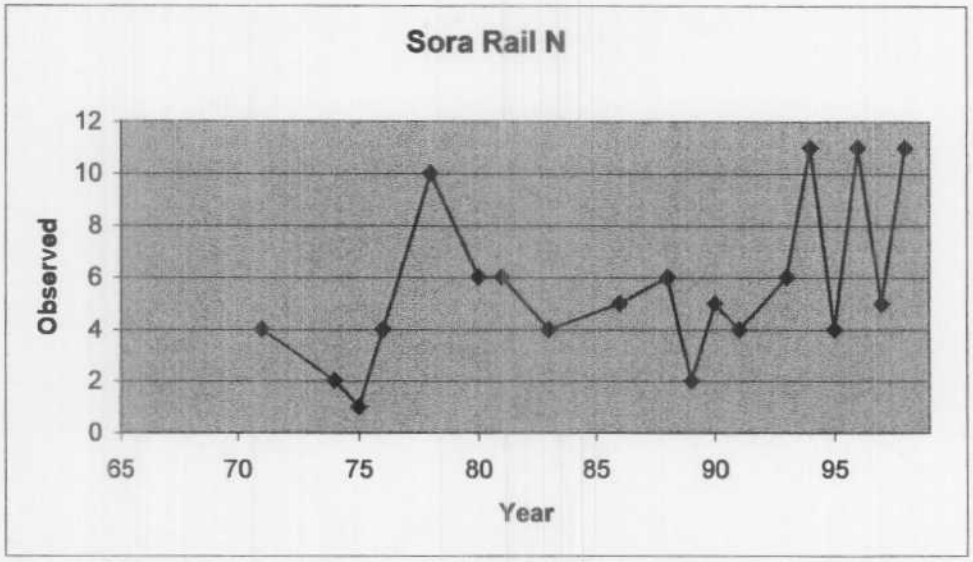
Mean 2 Standard Deviation 2



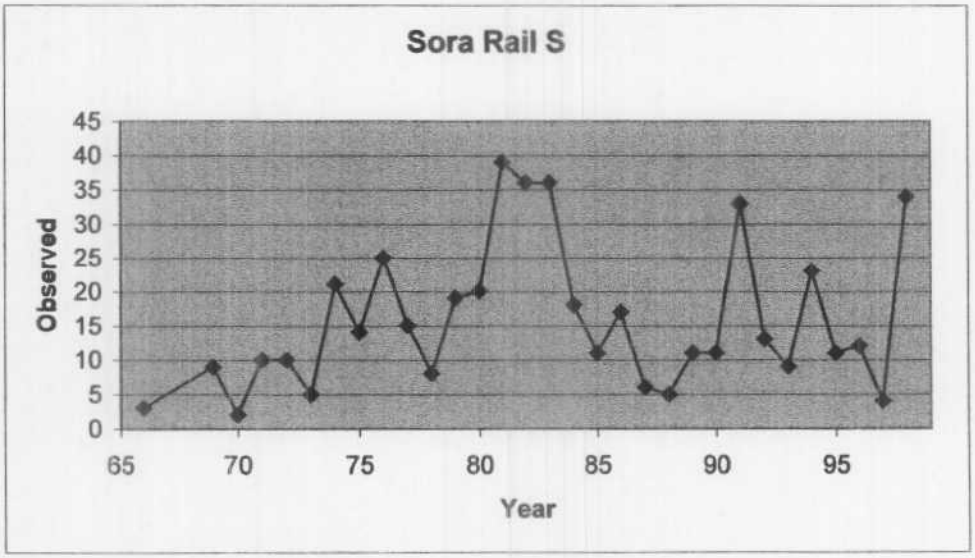
Mean 15 Standard Deviation 10



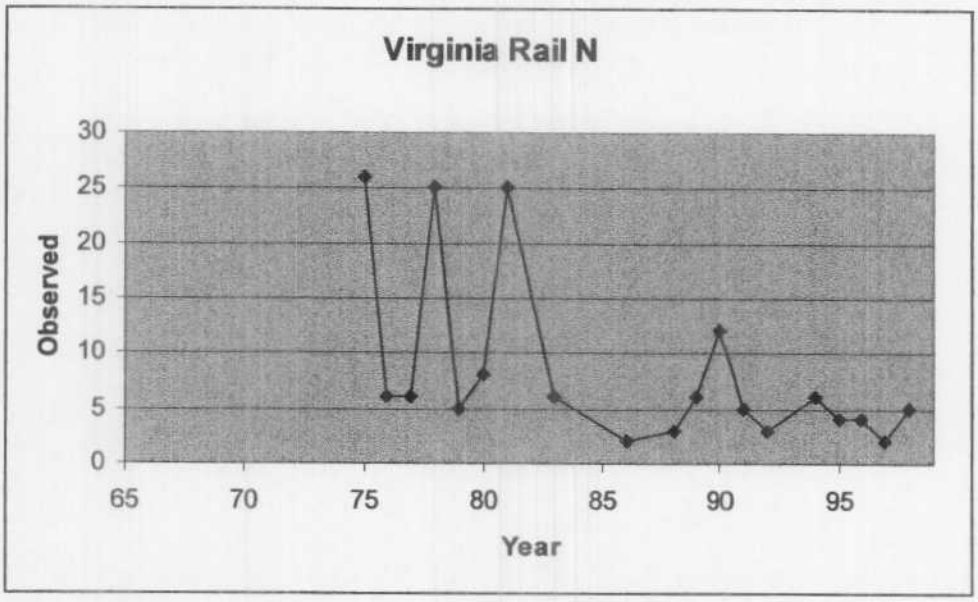
Mean 28 Standard Deviation 12



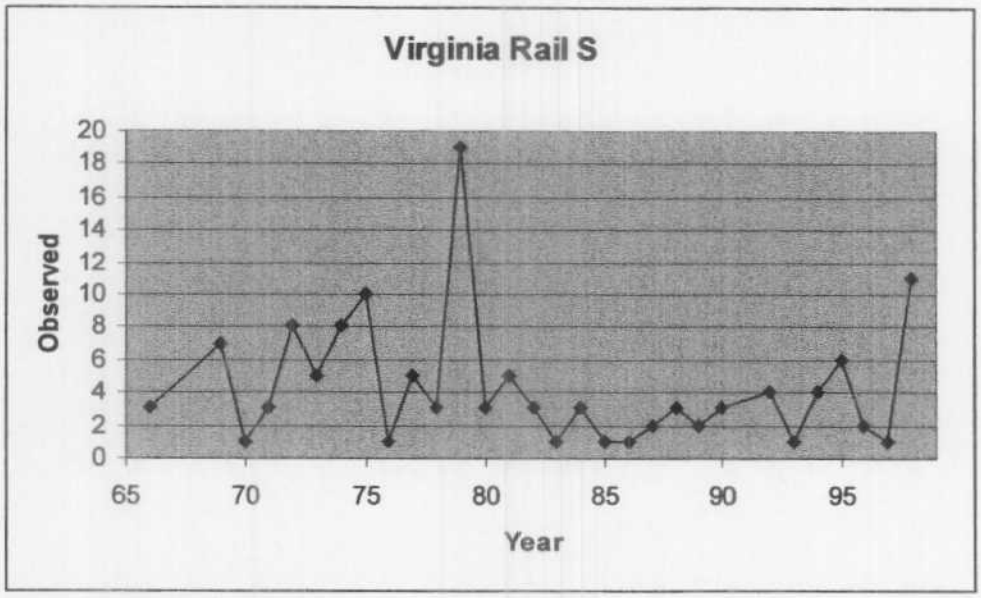
Mean 5 Standard Deviation 2



Mean 15 Standard Deviation 10

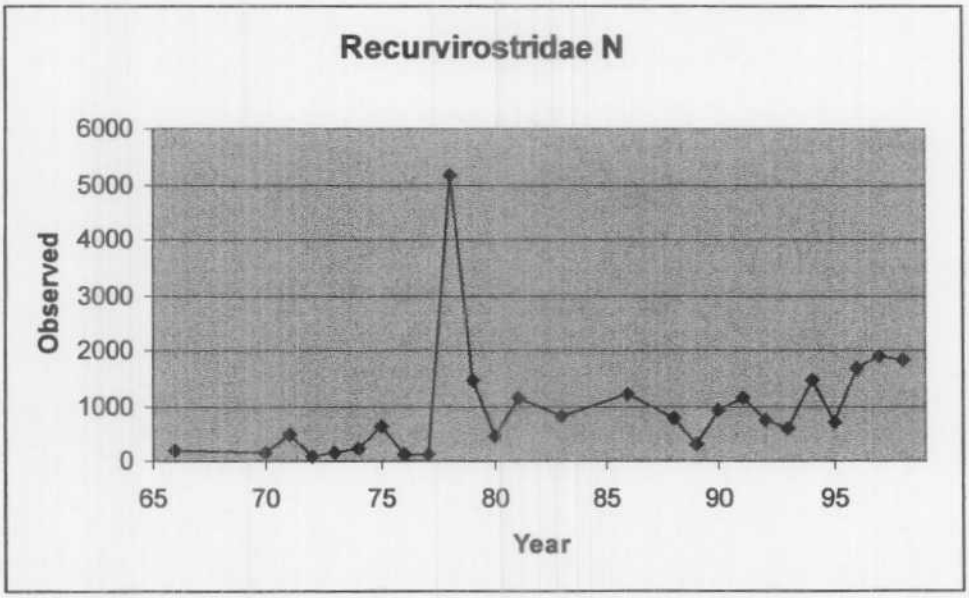


Mean 8 Standard Deviation 7

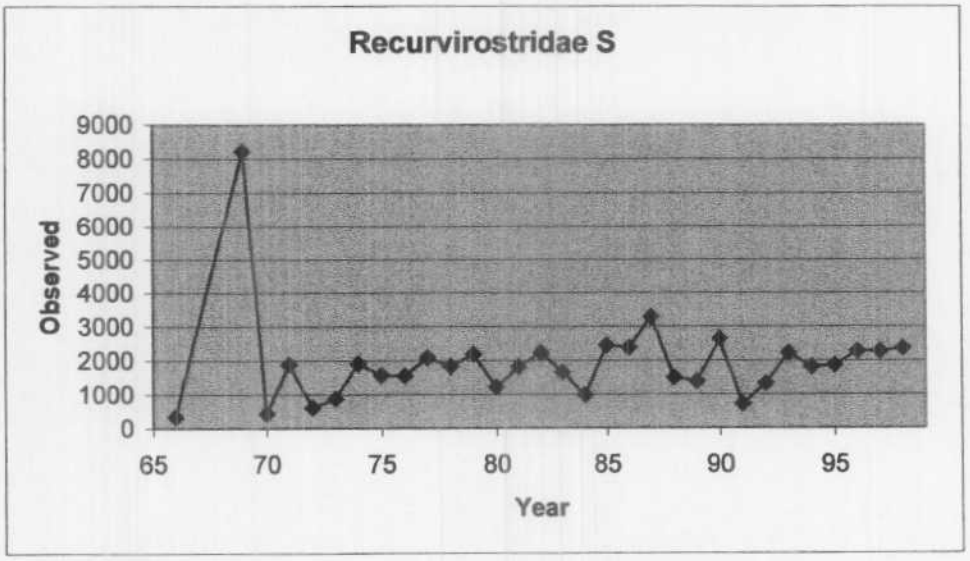


Mean 4 Standard Deviation 3

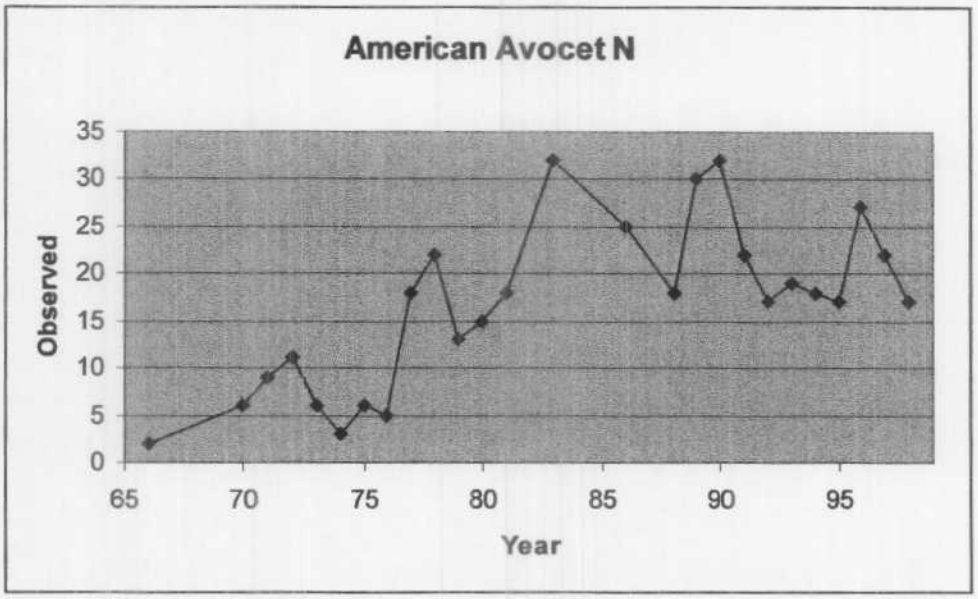
RECURVIROSTRIDAE



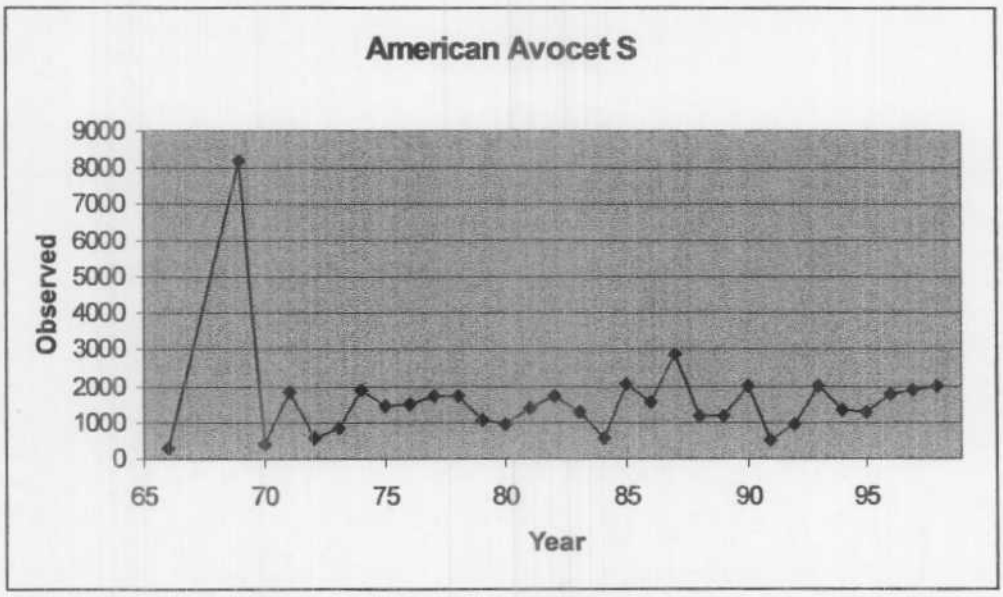
Mean 928 Standard Deviation 1013



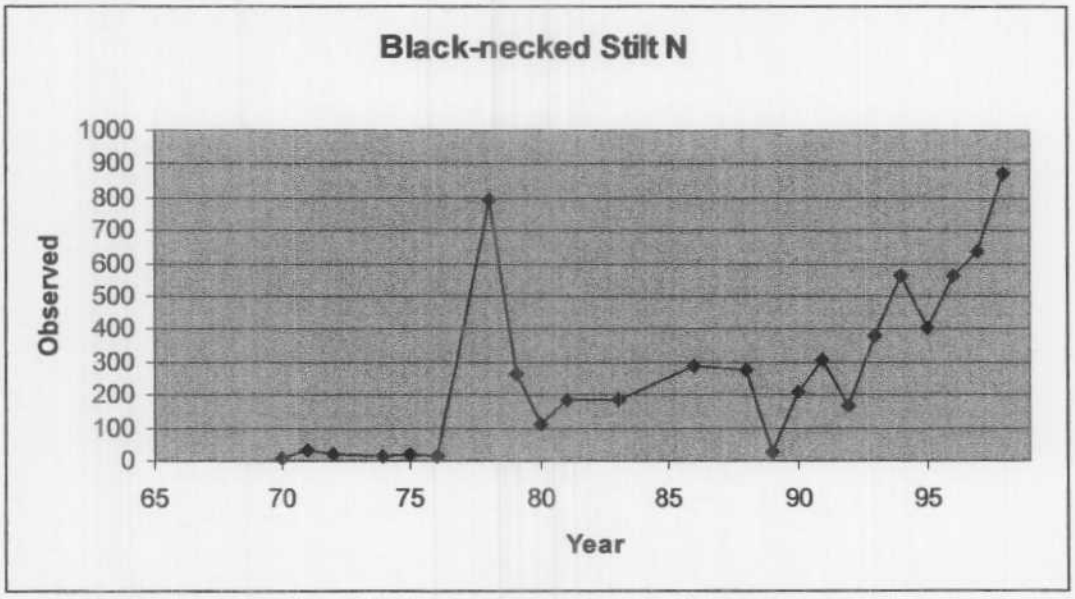
Mean 1915 Standard Deviation 1330



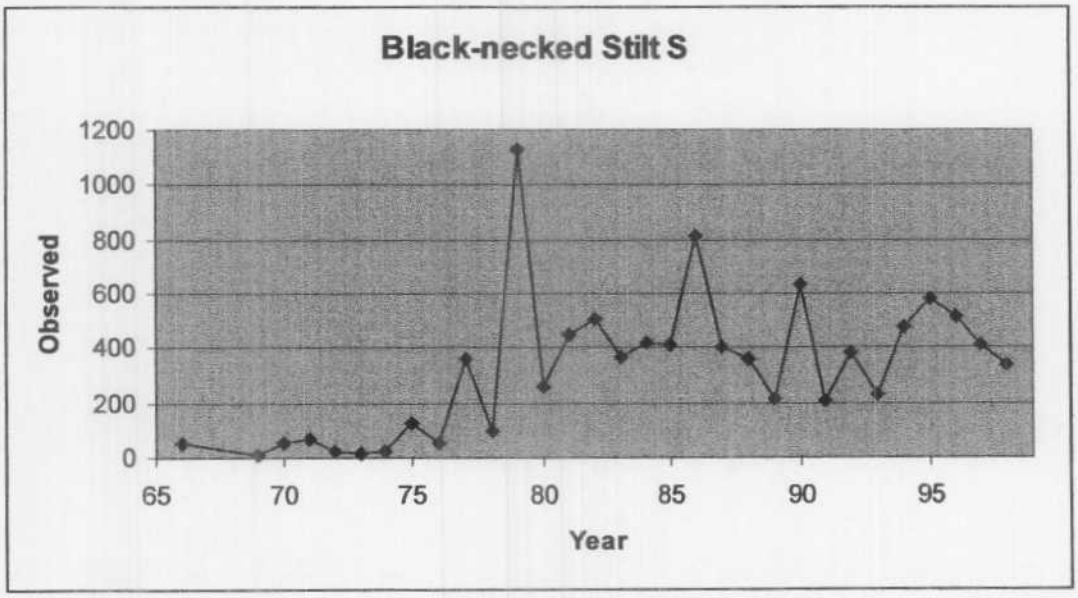
Mean 686 Standard Deviation 827



Mean 1595 Standard Deviation 1336

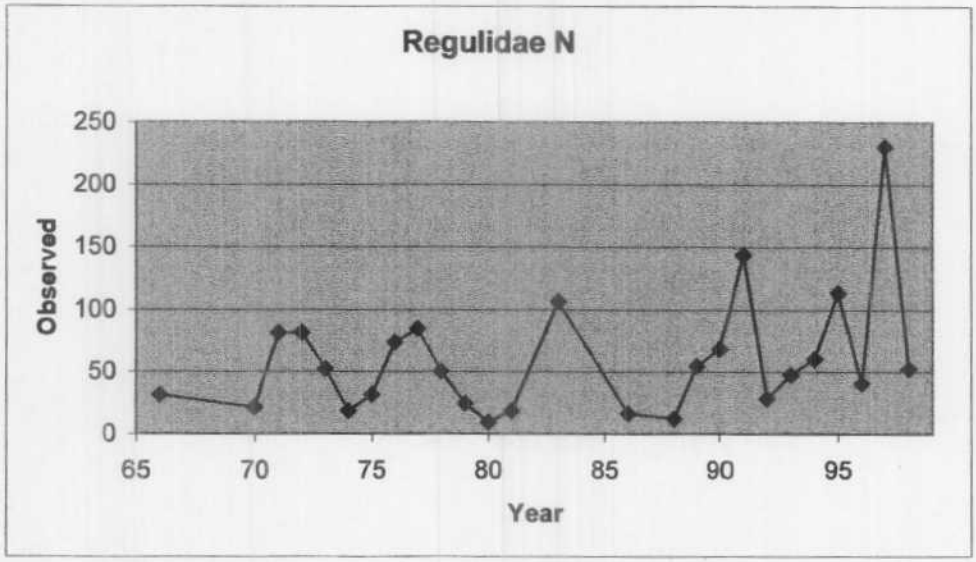


Mean 252 Standard Deviation 273

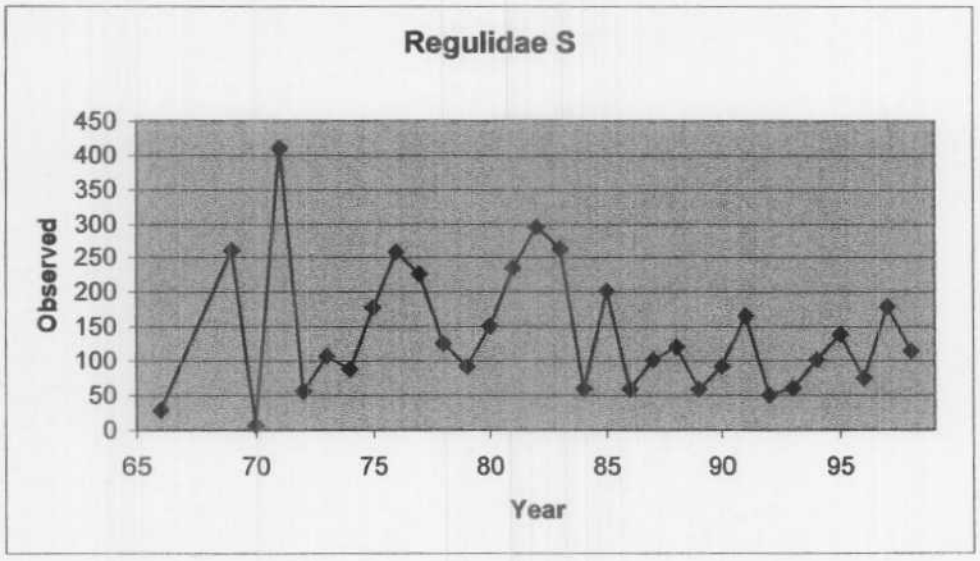


Mean 320 Standard Deviation 253

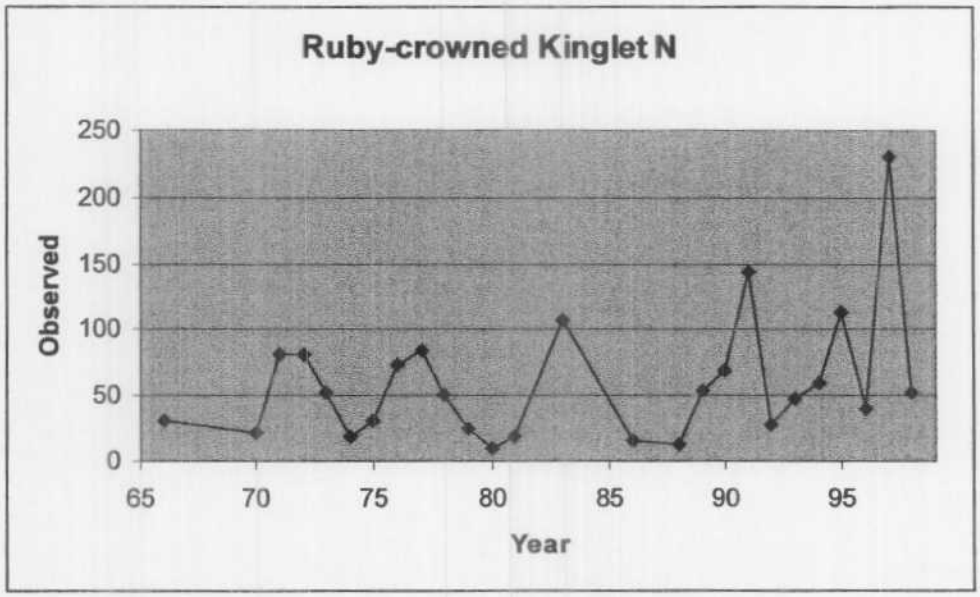
REGULIDAE



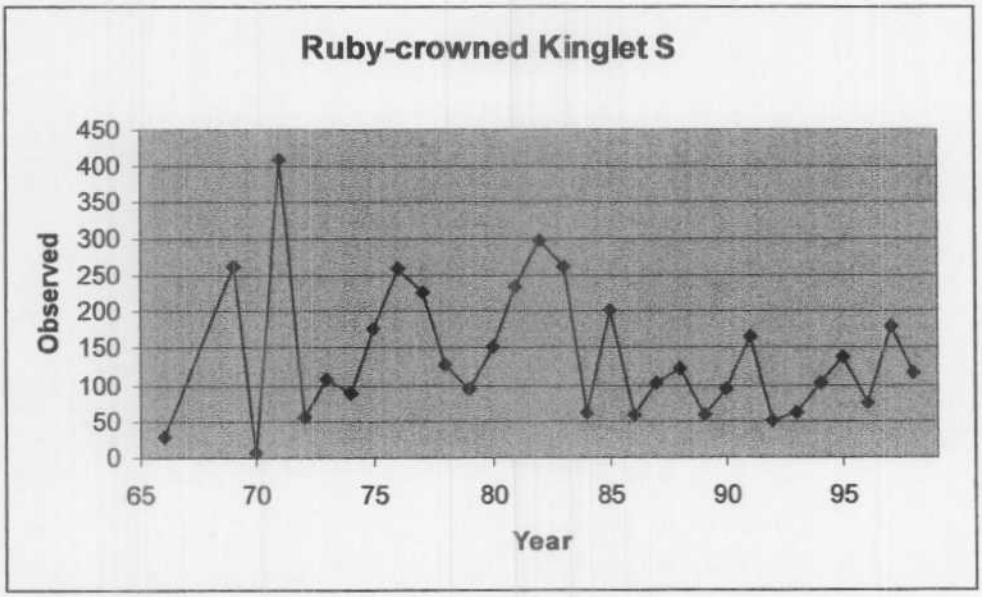
Mean 59 Standard Deviation 47



Mean 139 Standard Deviation 90

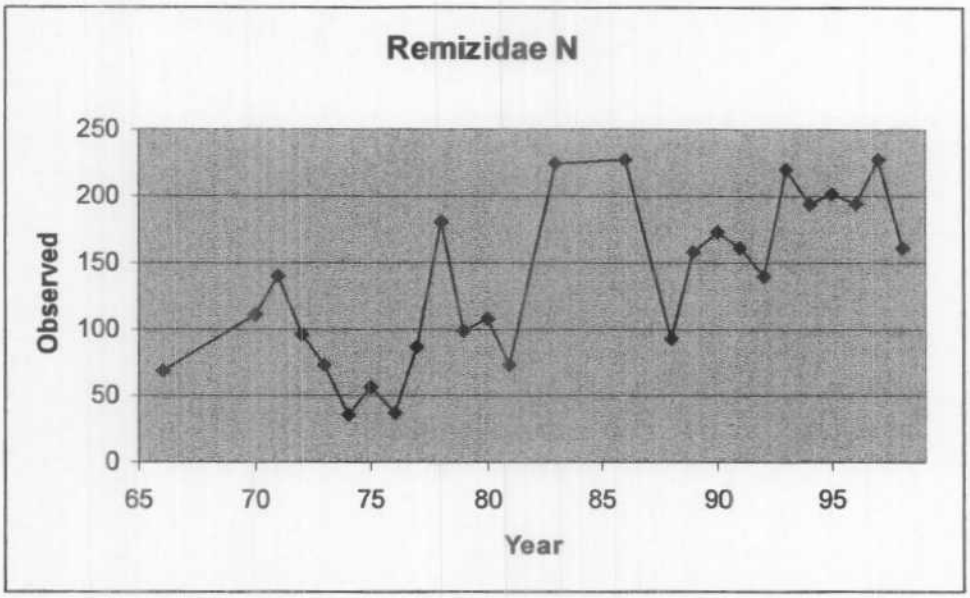


Mean 59 Standard Deviation 47

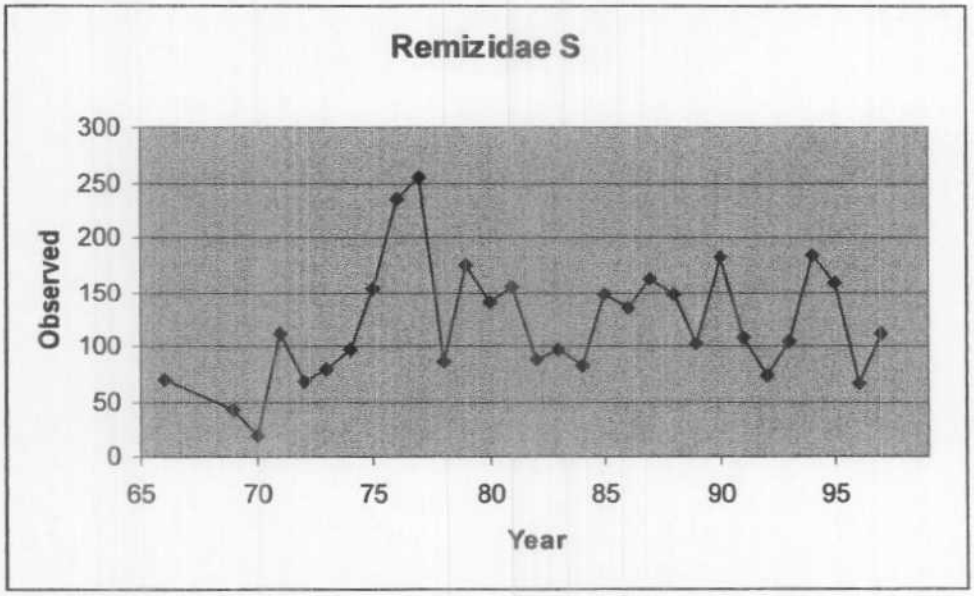


Mean 139 Standard Deviation 90

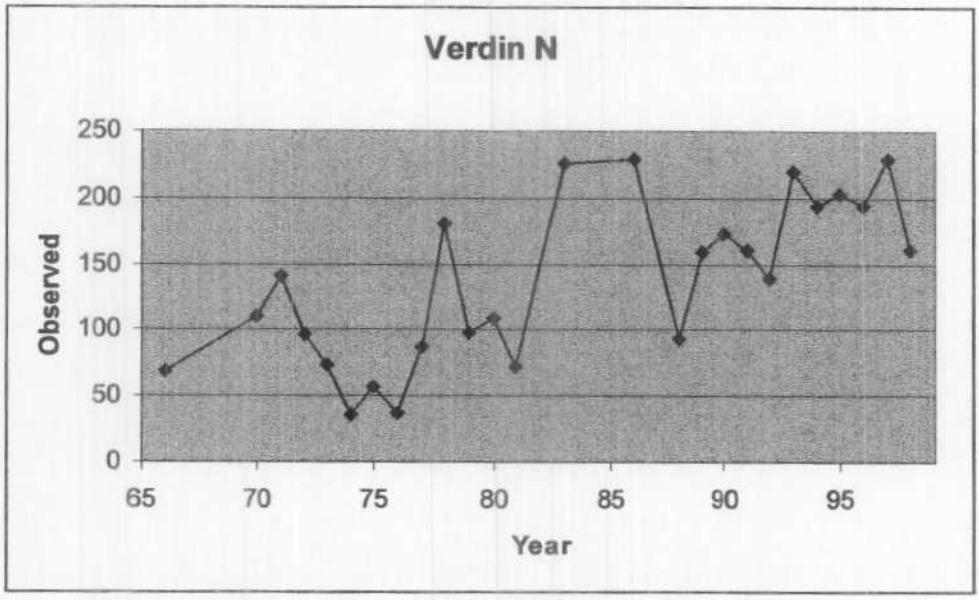
REMIZIDAE



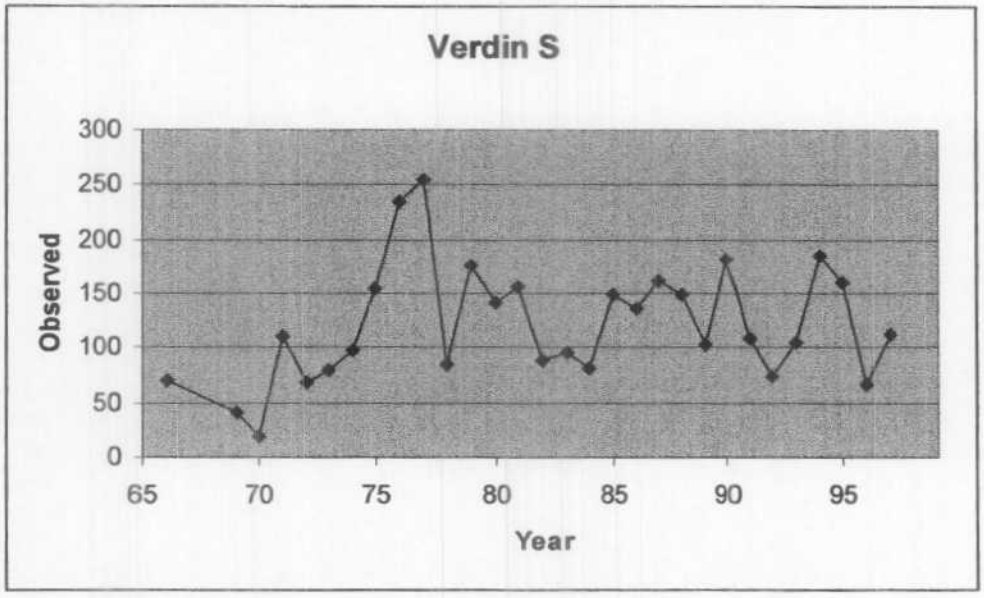
Mean 135 Standard Deviation 60



Mean 120 Standard Deviation 52

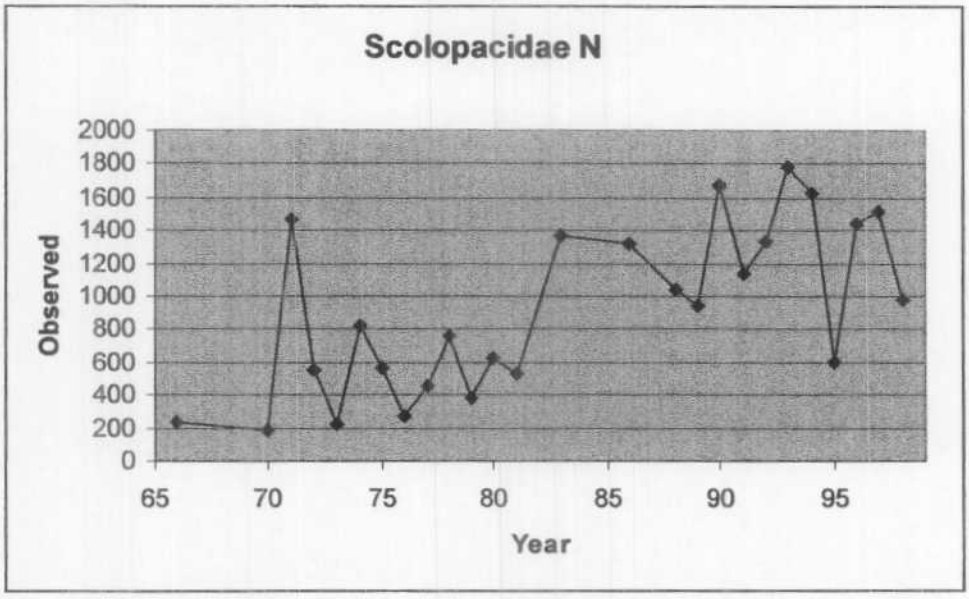


Mean 135 Standard Deviation 60

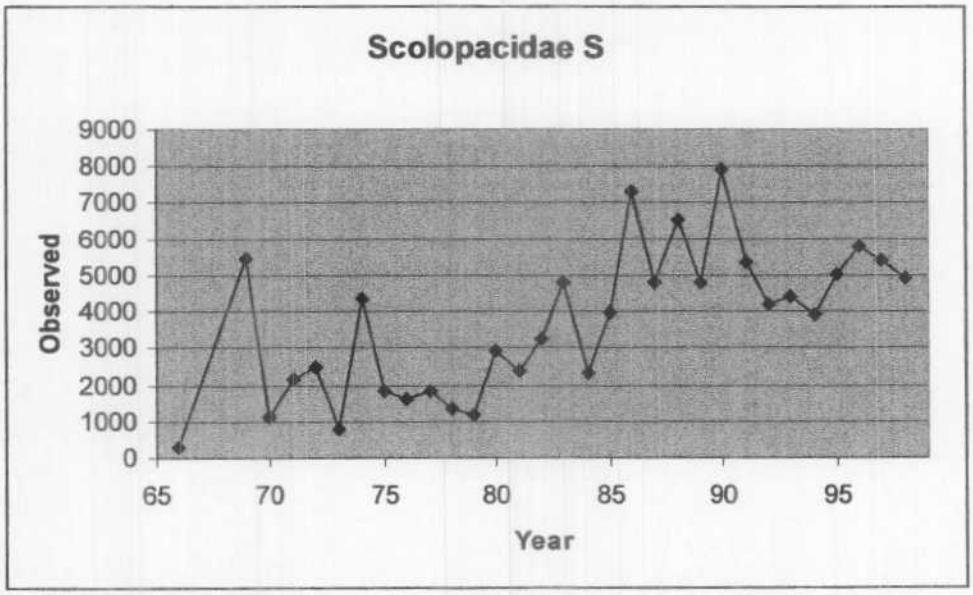


Mean 120 Standard Deviation 52

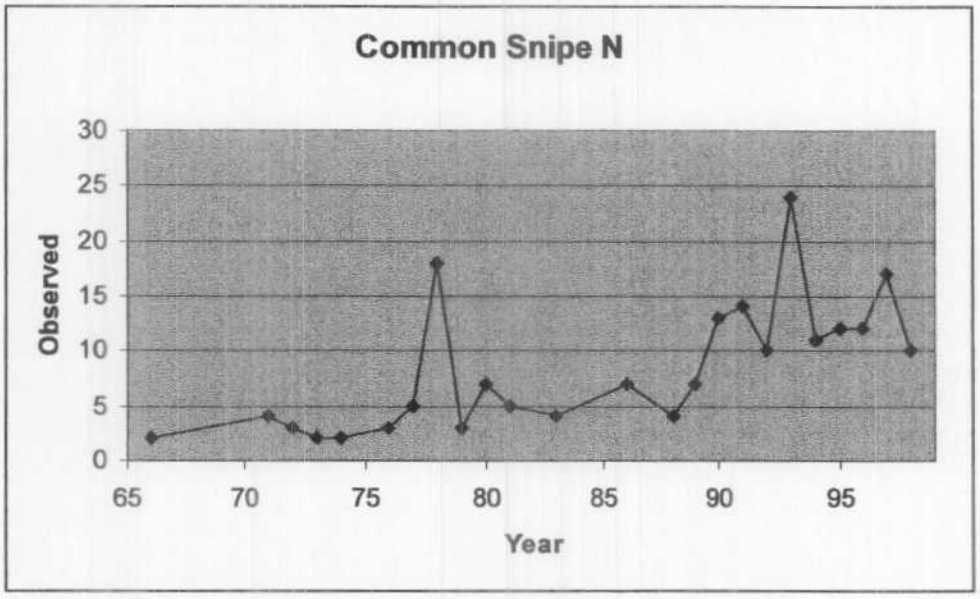
SCOLOPACIDAE



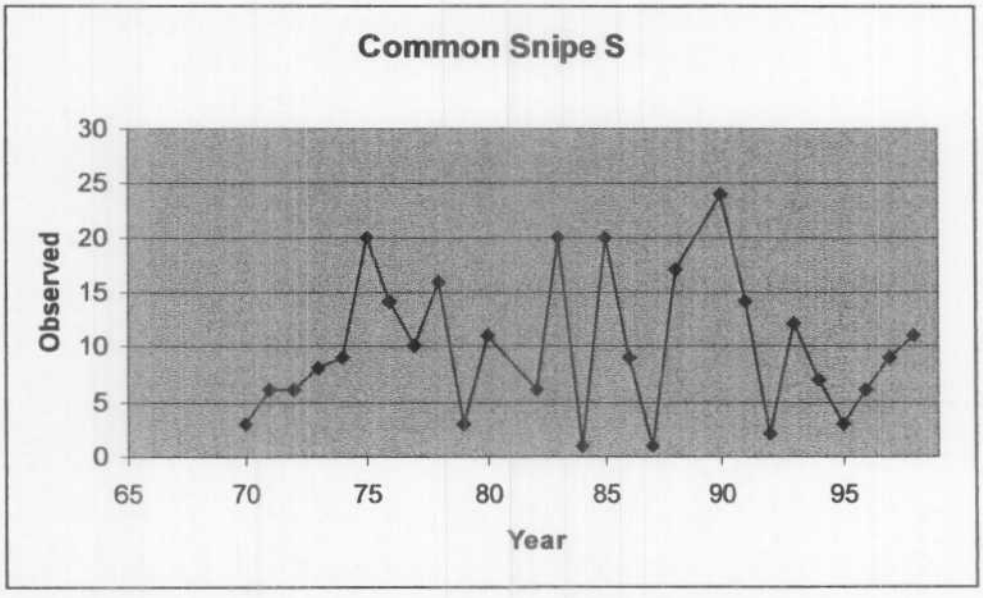
Mean 913 Standard Deviation 497



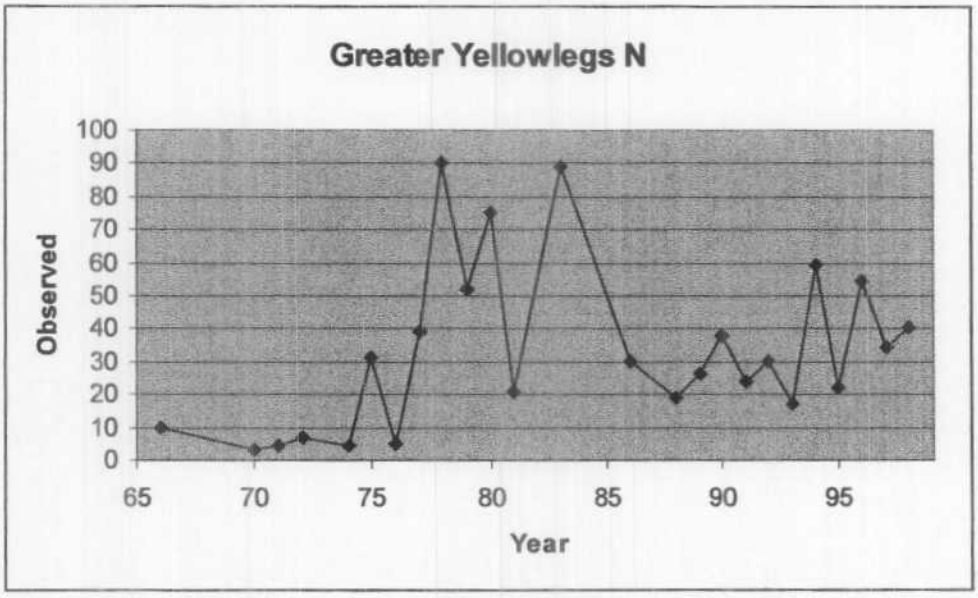
Mean 3670 Standard Deviation 1950



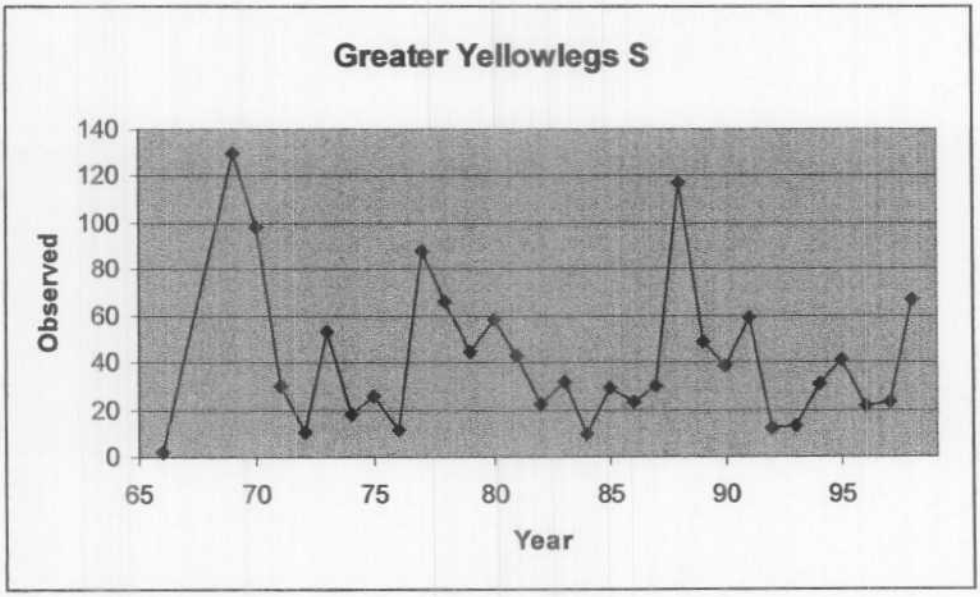
Mean 8 Standard Deviation 5



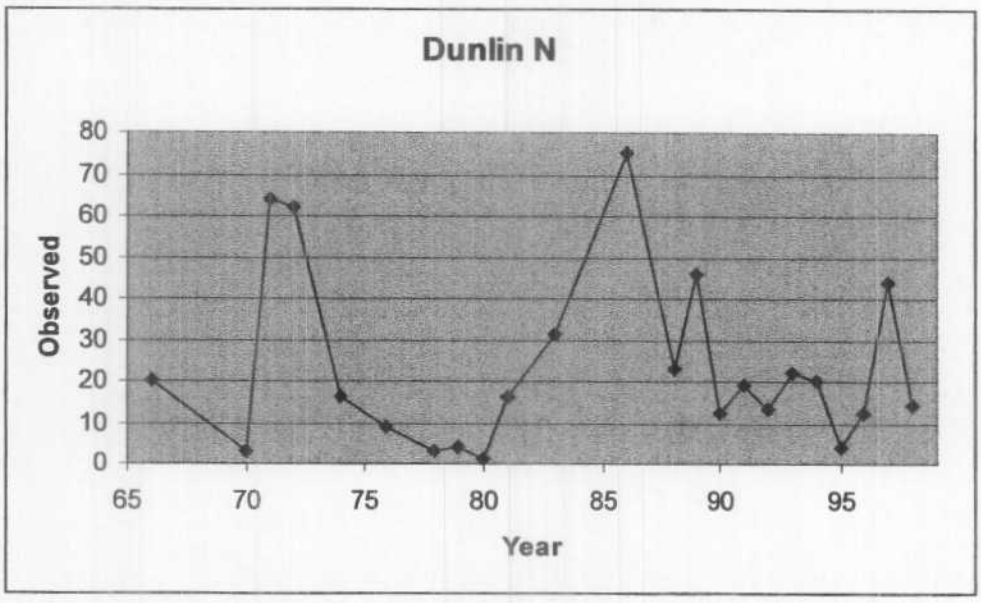
Mean 9 Standard Deviation 6



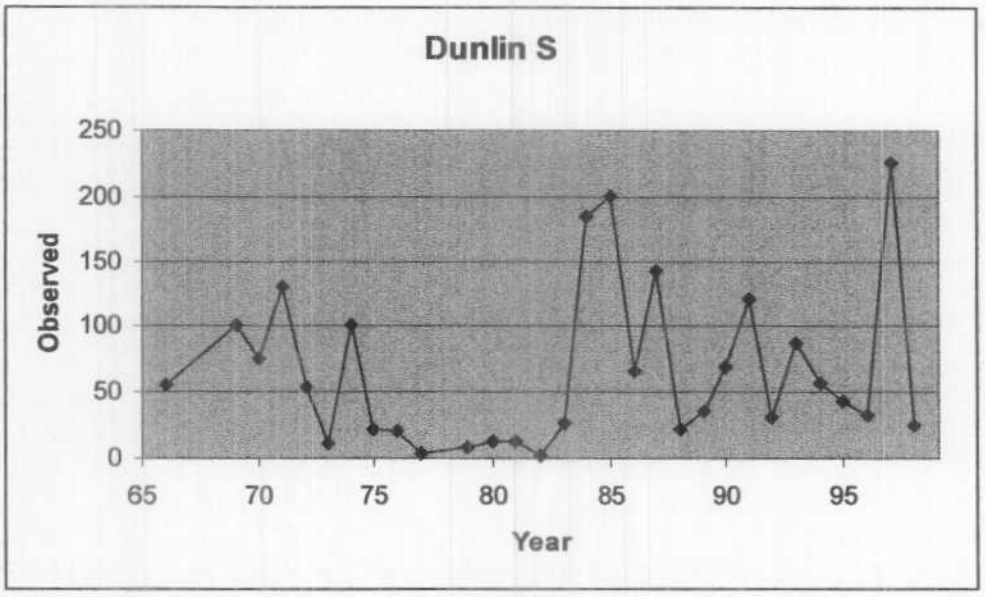
Mean 32 Standard Deviation 24



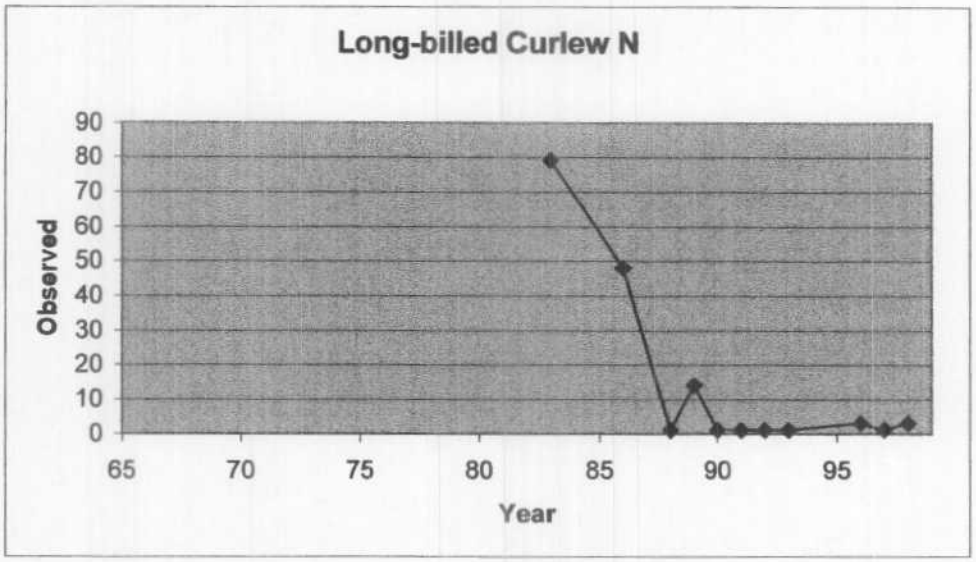
Mean 41 Standard Deviation 31



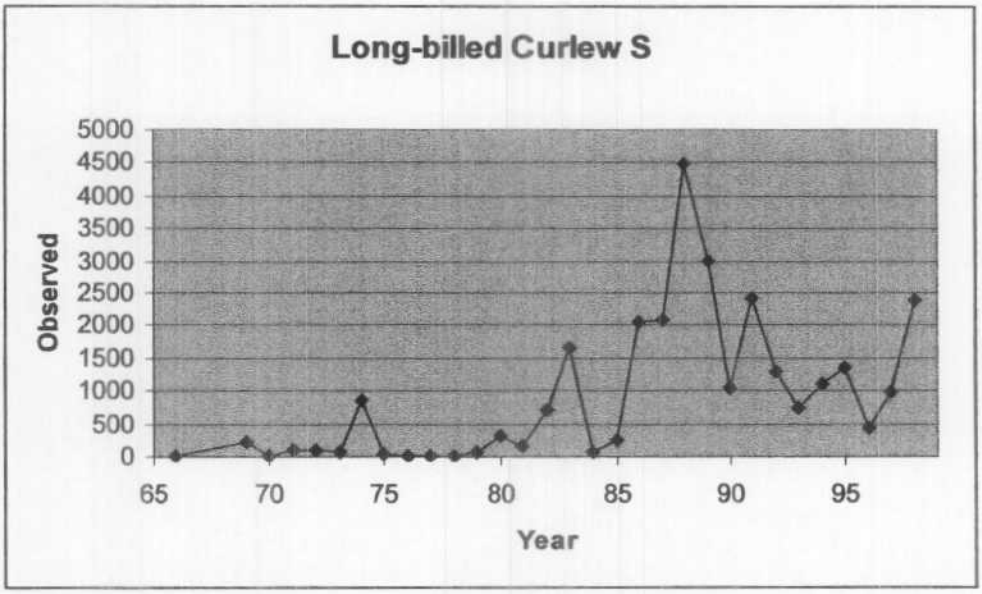
Mean 23 Standard Deviation 20

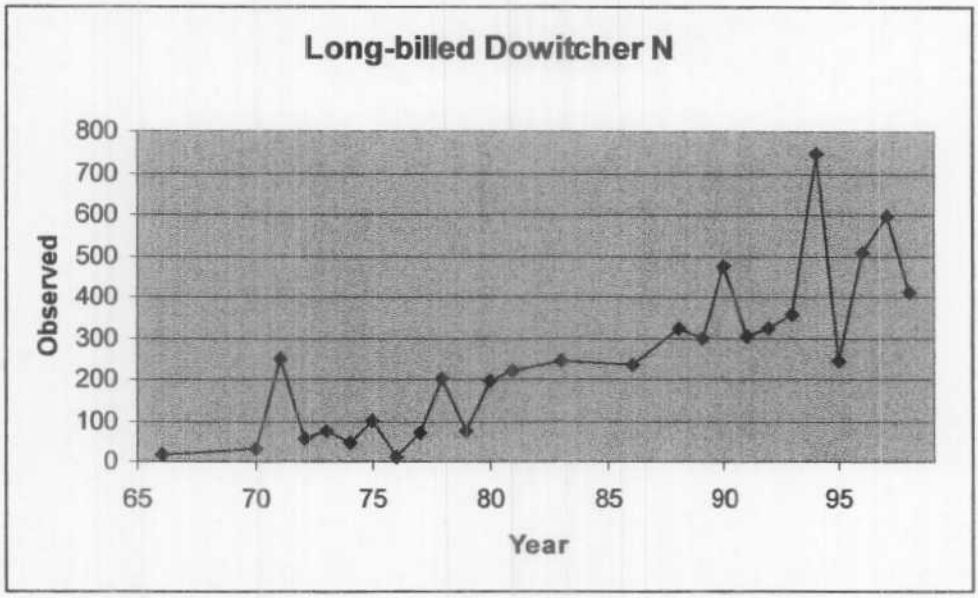


Mean 65 Standard Deviation 59

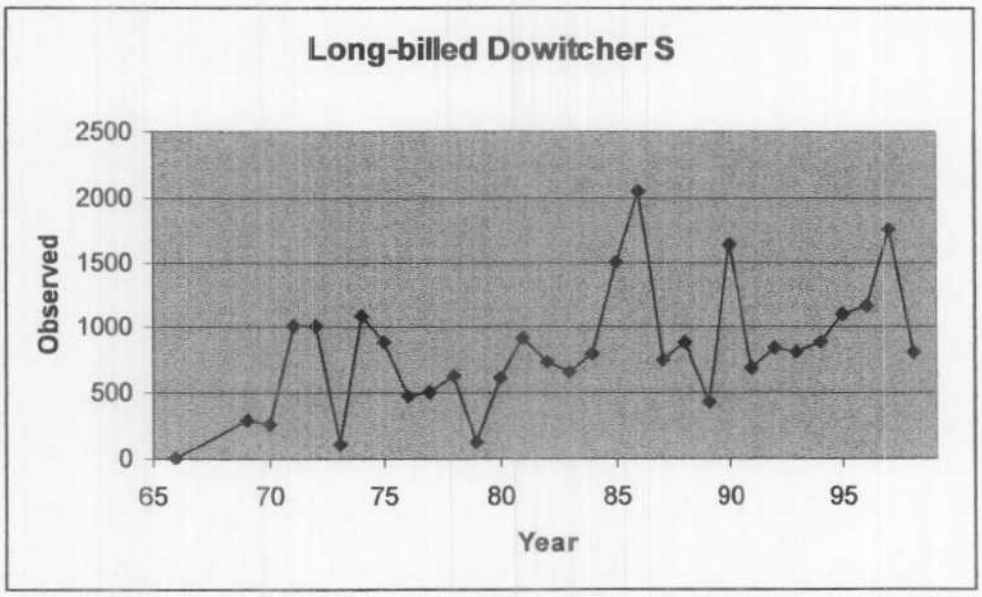


Mean 13 Standard Deviation 24

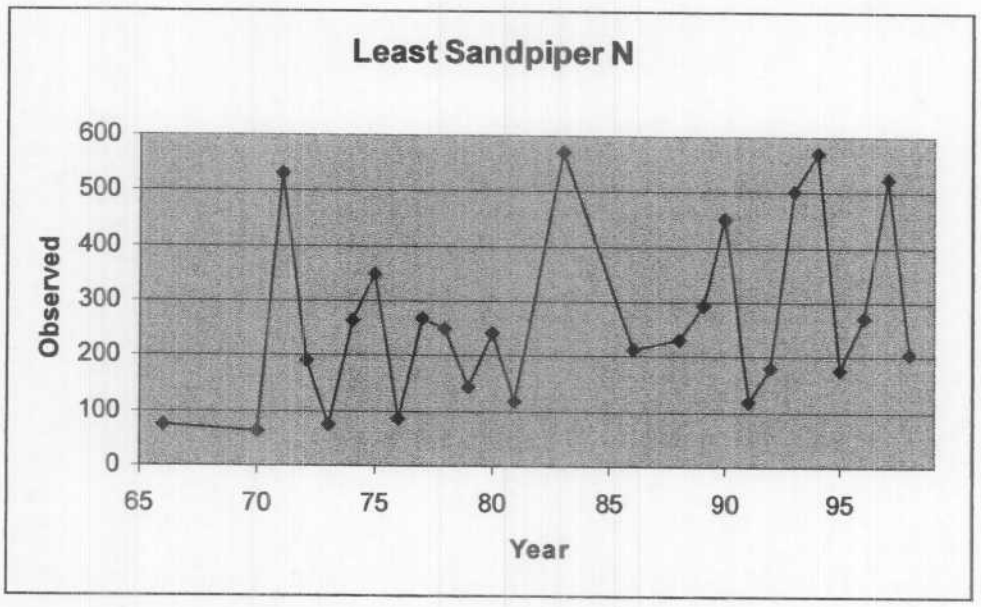




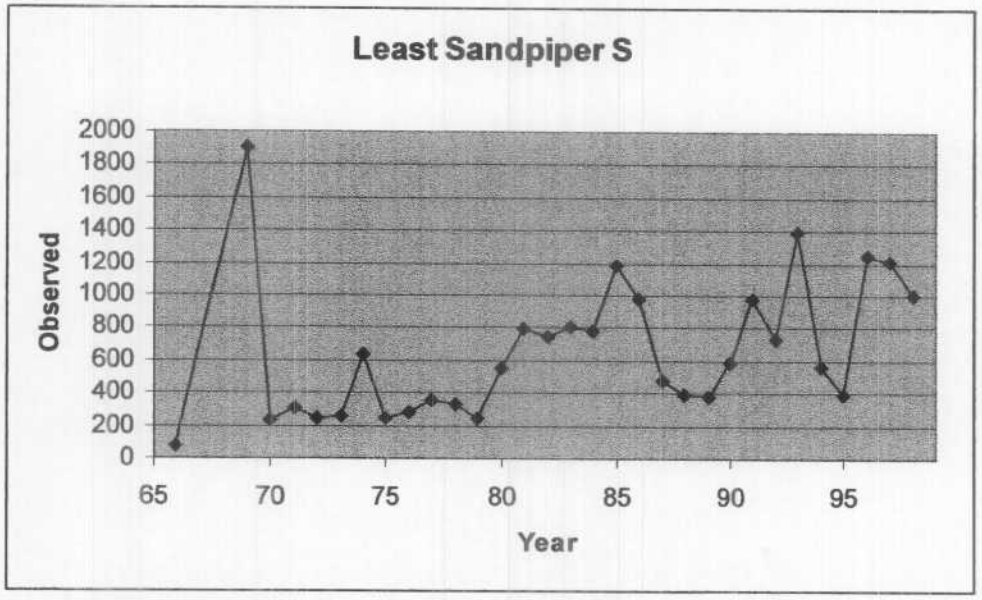
Mean 245 Standard Deviation 185



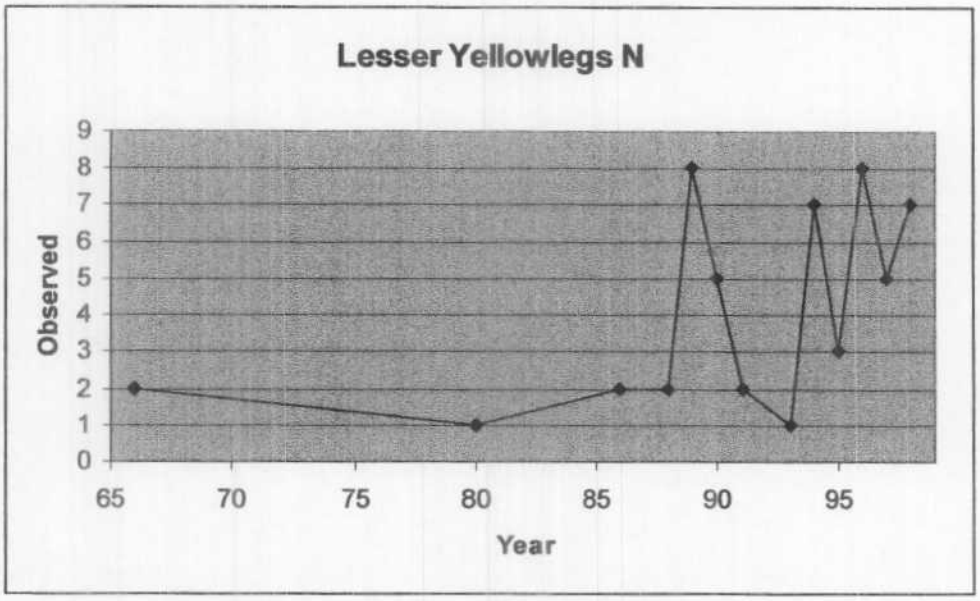
Mean 816 Standard Deviation 462



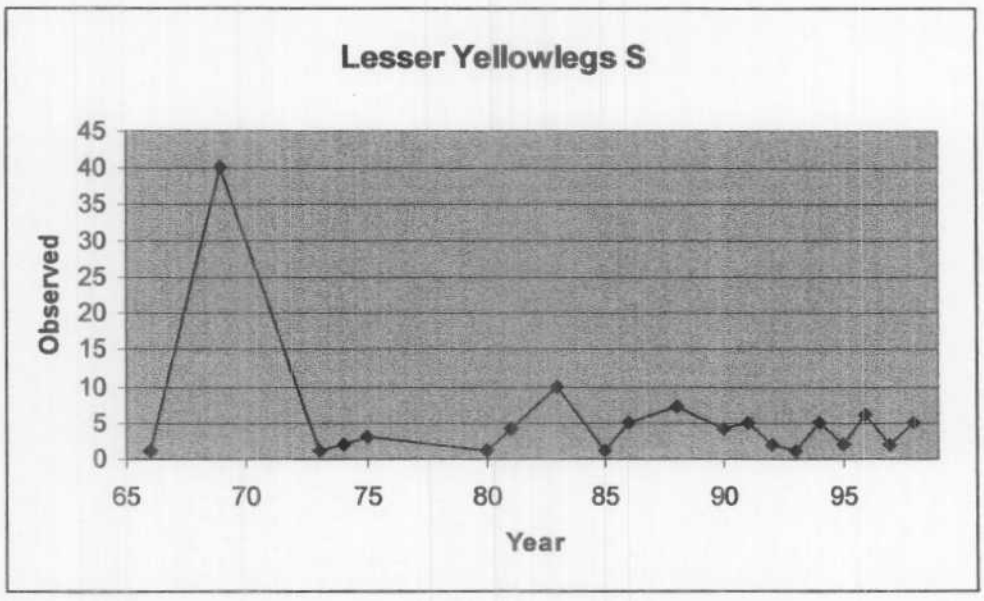
Mean 267 Standard Deviation 158



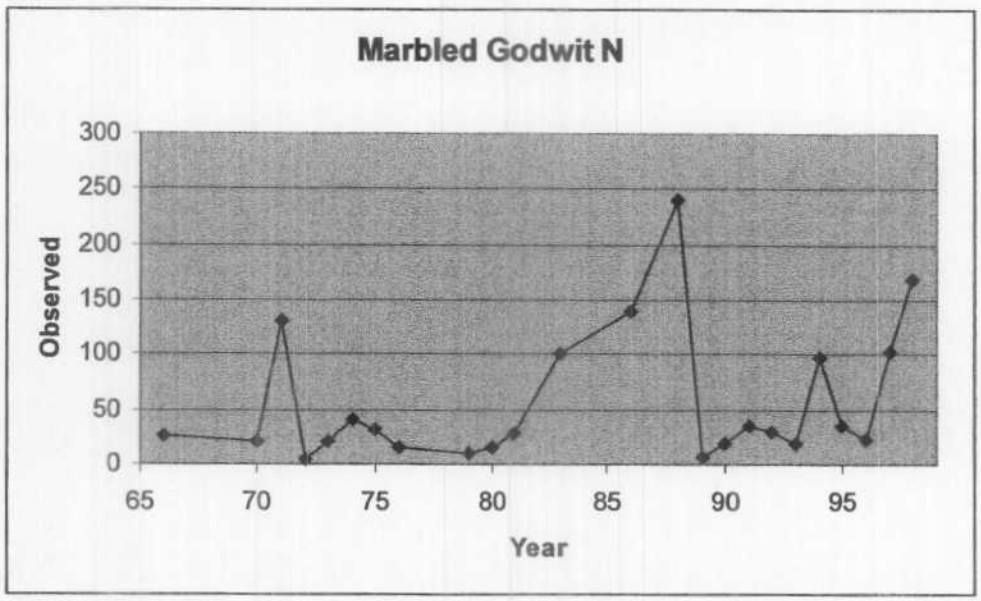
Mean 653 Standard Deviation 415



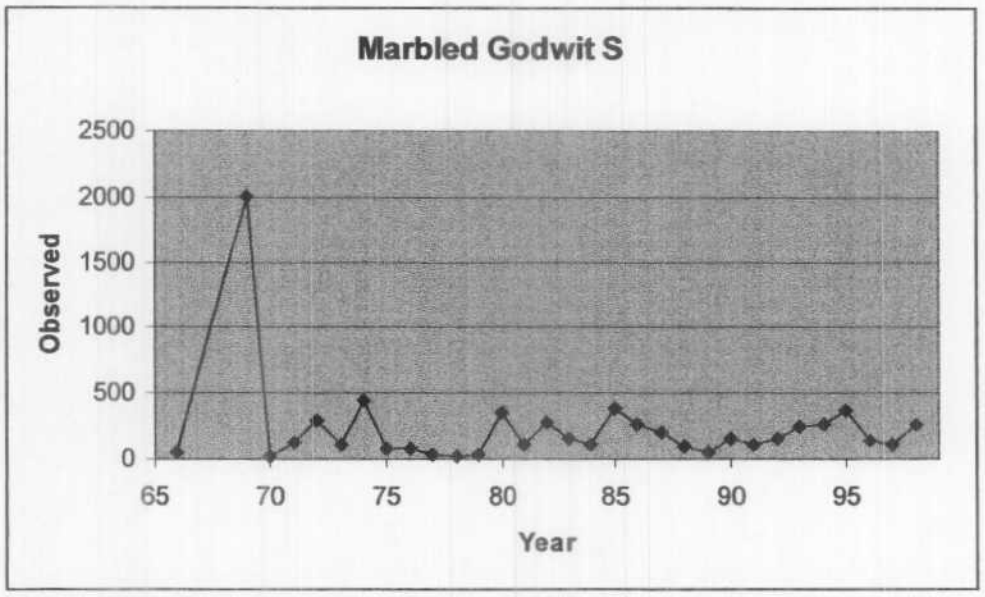
Mean 4 Standard Deviation 2



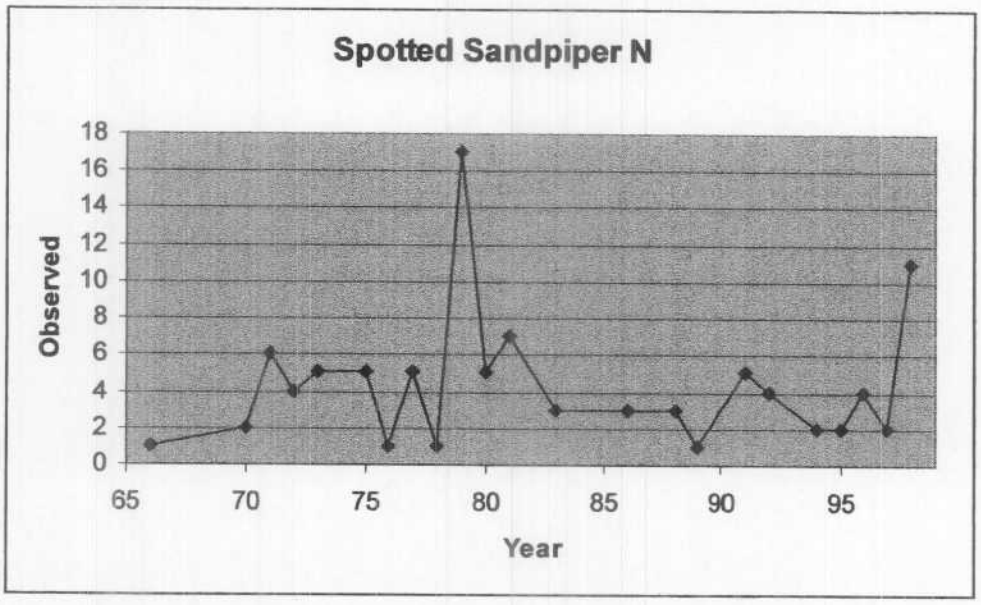
Mean 5 Standard Deviation 8



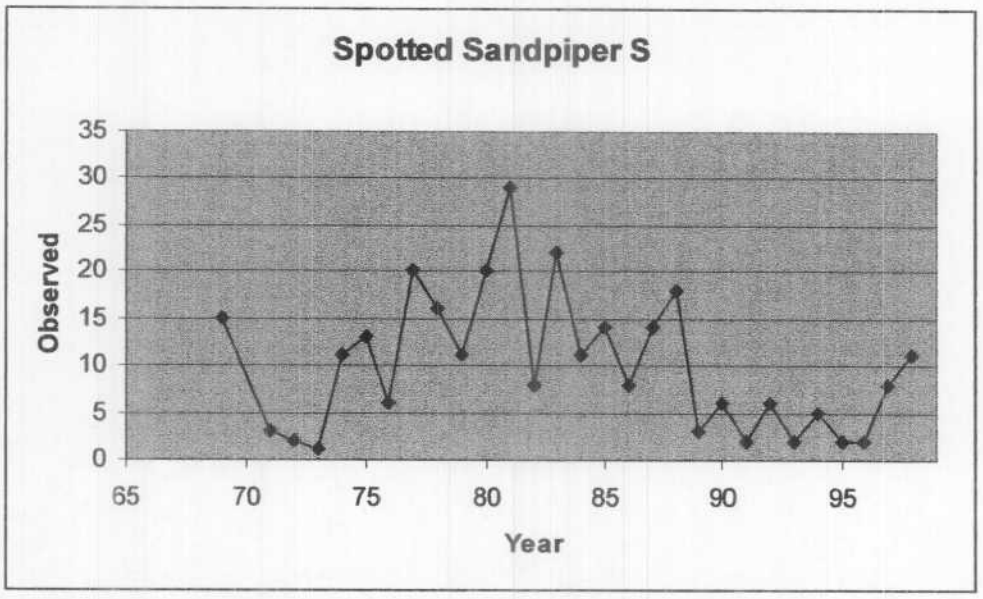
Mean 56 Standard Deviation 59



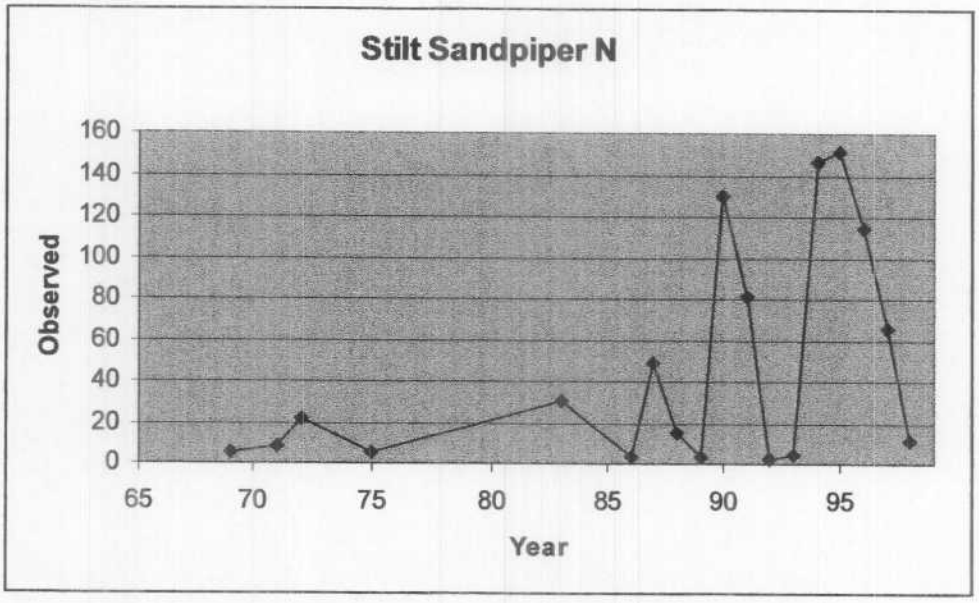
Mean 225 Standard Deviation 343



Mean 4 Standard Deviation 3

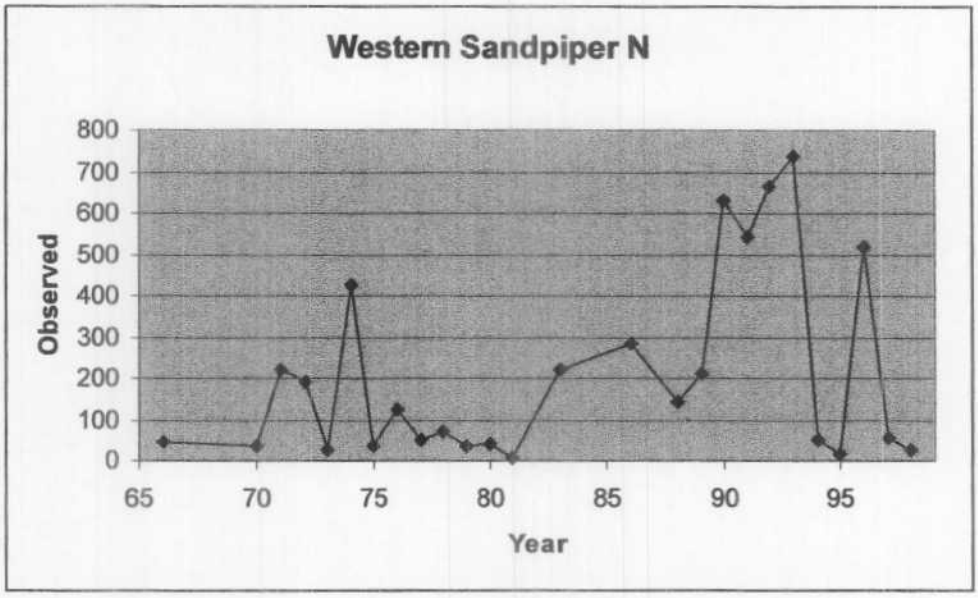


Mean 9 Standard Deviation 7

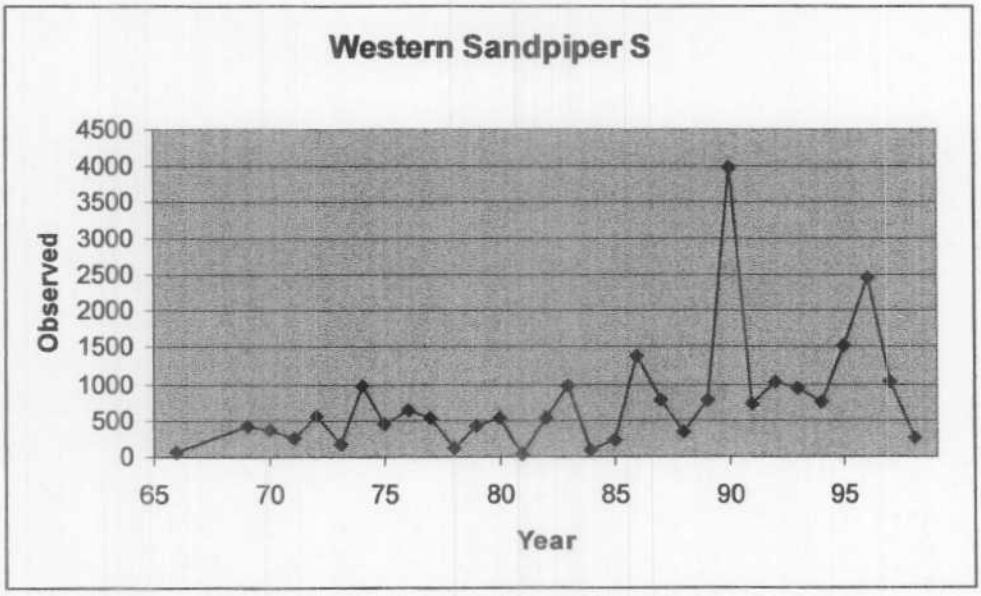


Mean 46

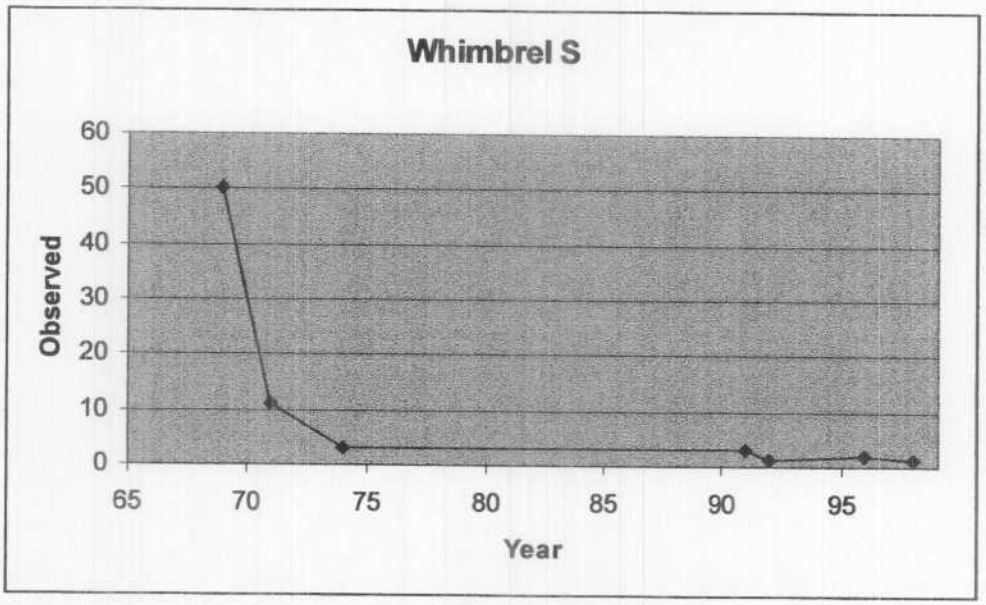
Standard Deviation 52



Mean 225 Standard Deviation 206

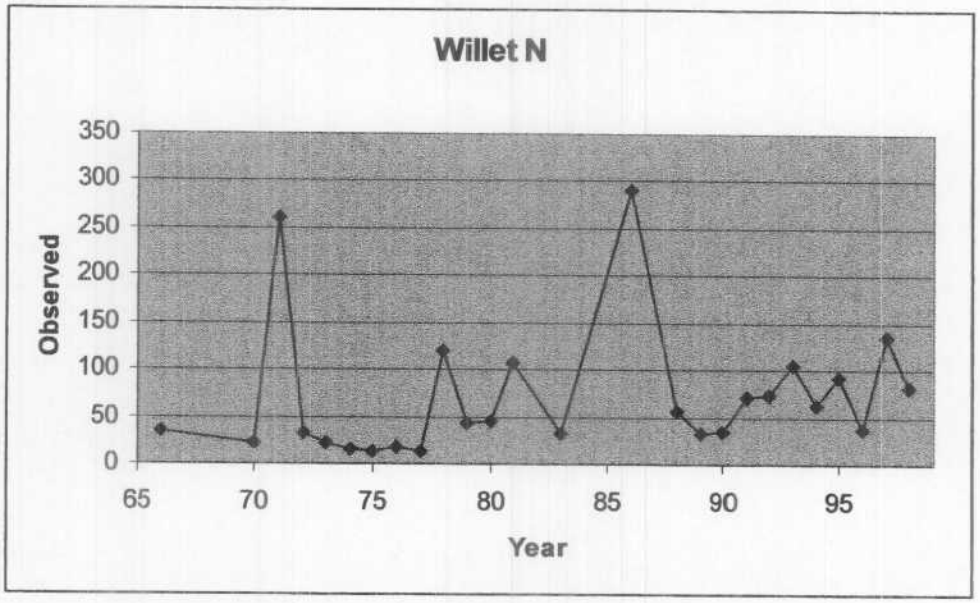


Mean 742 Standard Deviation 768

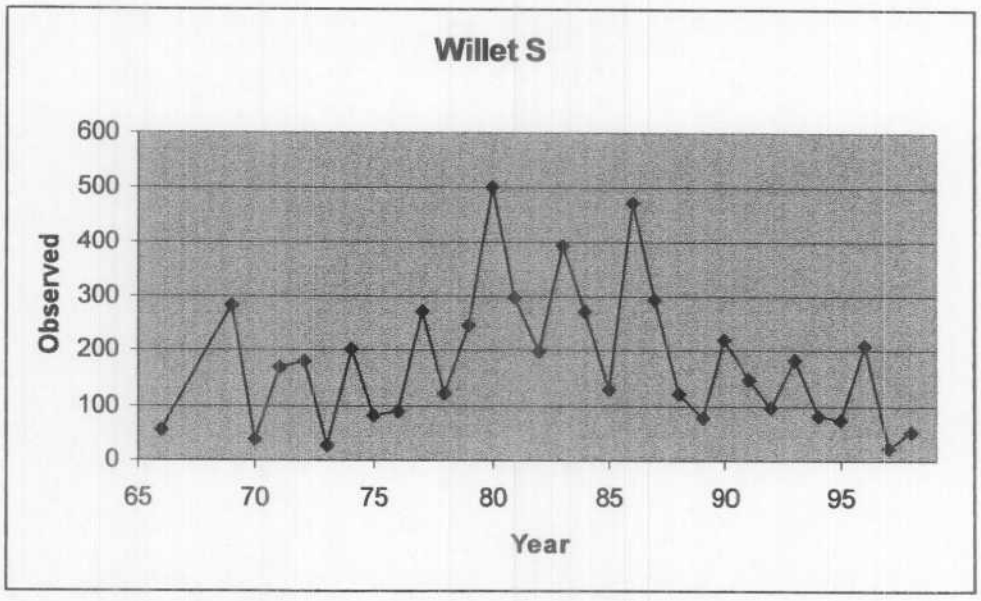


Mean 10

Standard Deviation 16

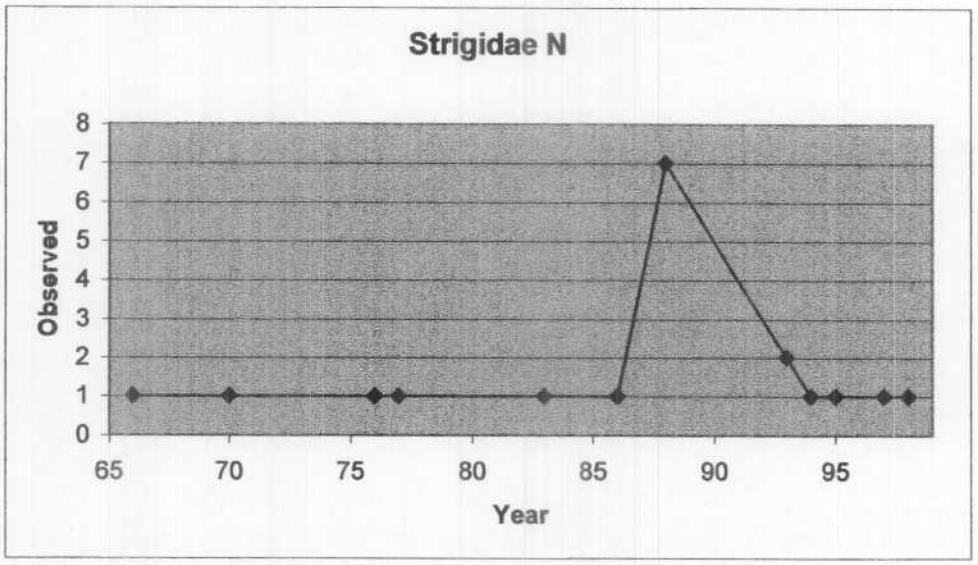


Mean 70 Standard Deviation 68

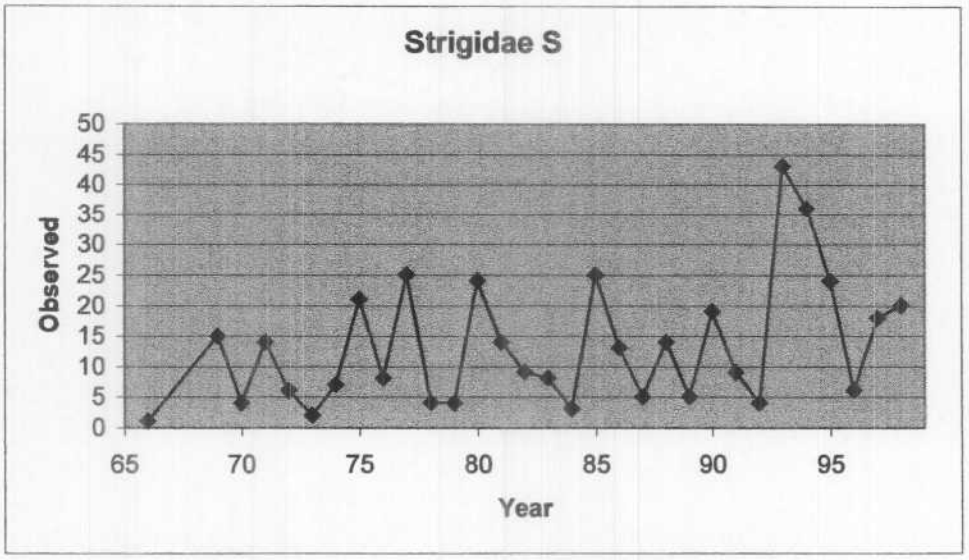


Mean 179 Standard Deviation 122

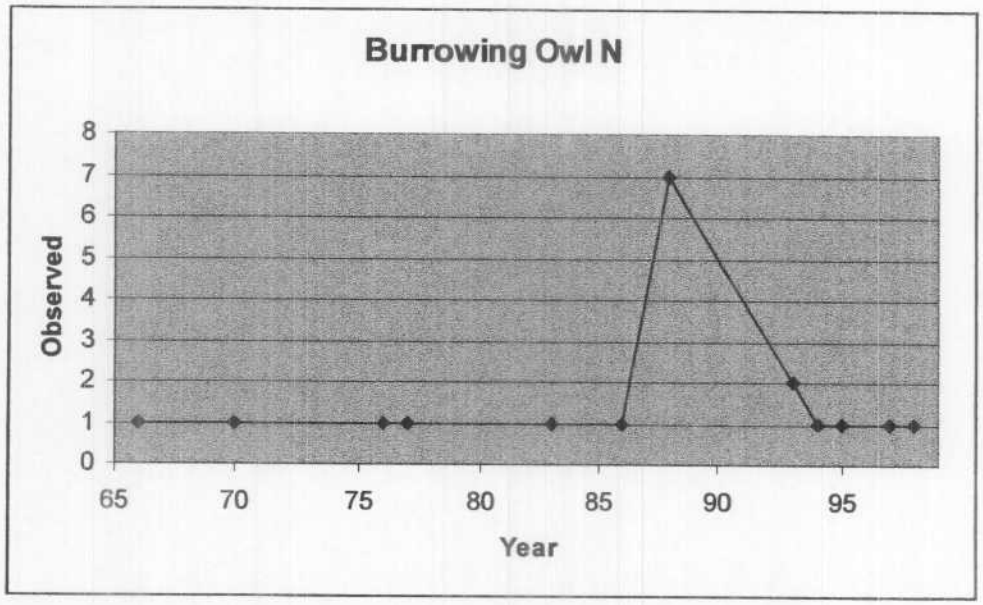
STRIGIDAE



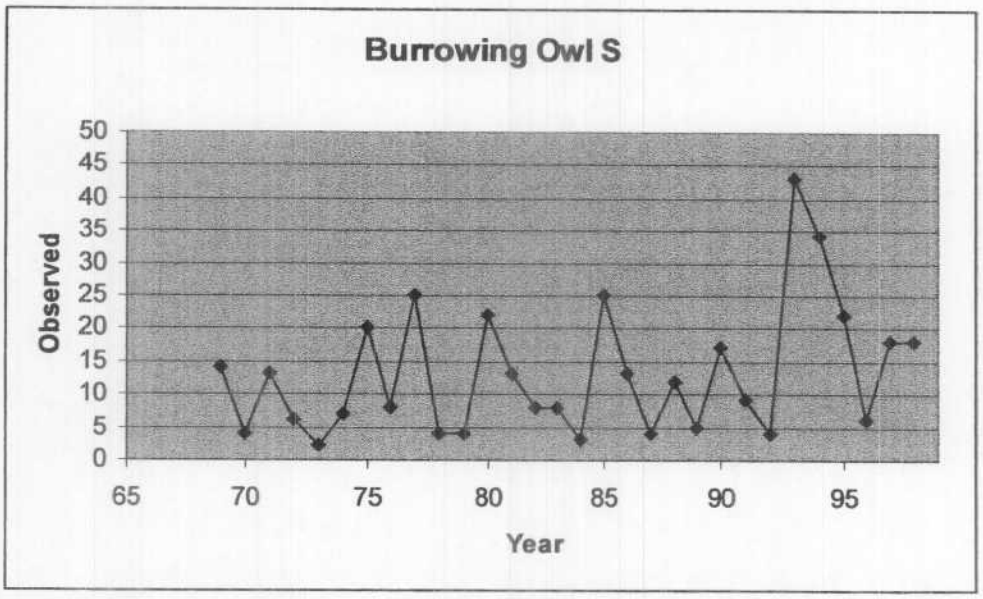
Mean 1 Standard Deviation 1



Mean 13 Standard Deviation 10

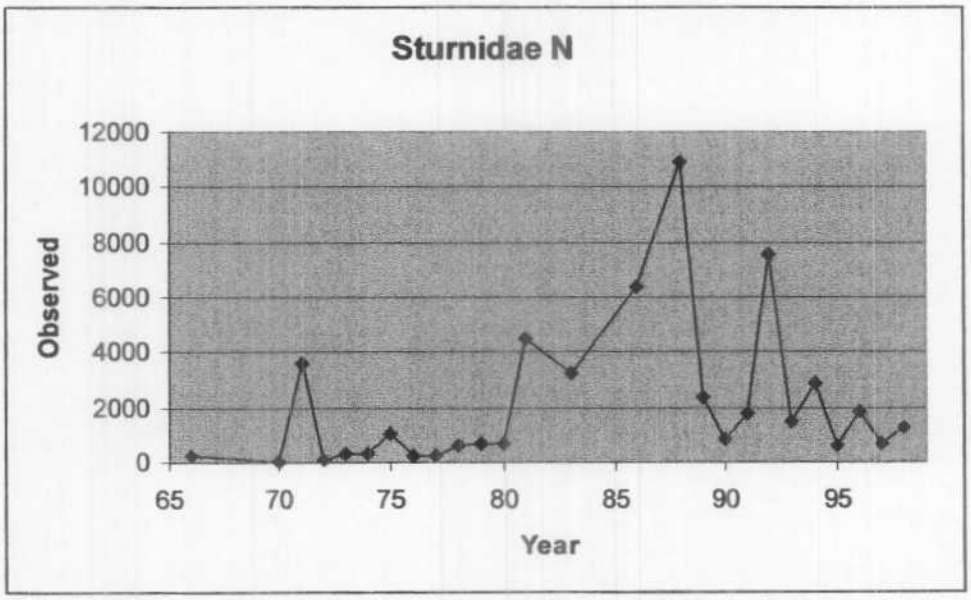


Mean 1 Standard Deviation 1

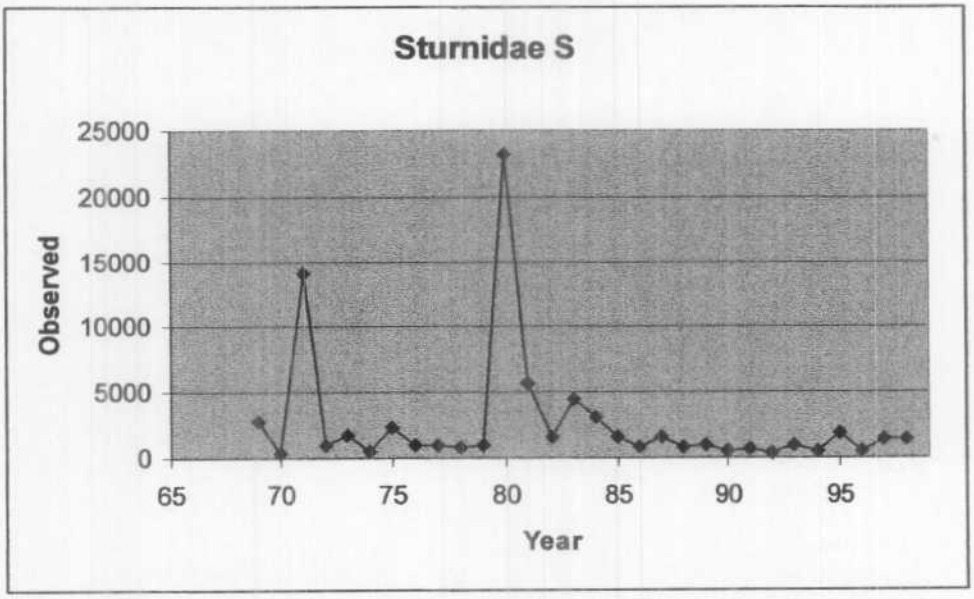


Mean 13 Standard Deviation 9

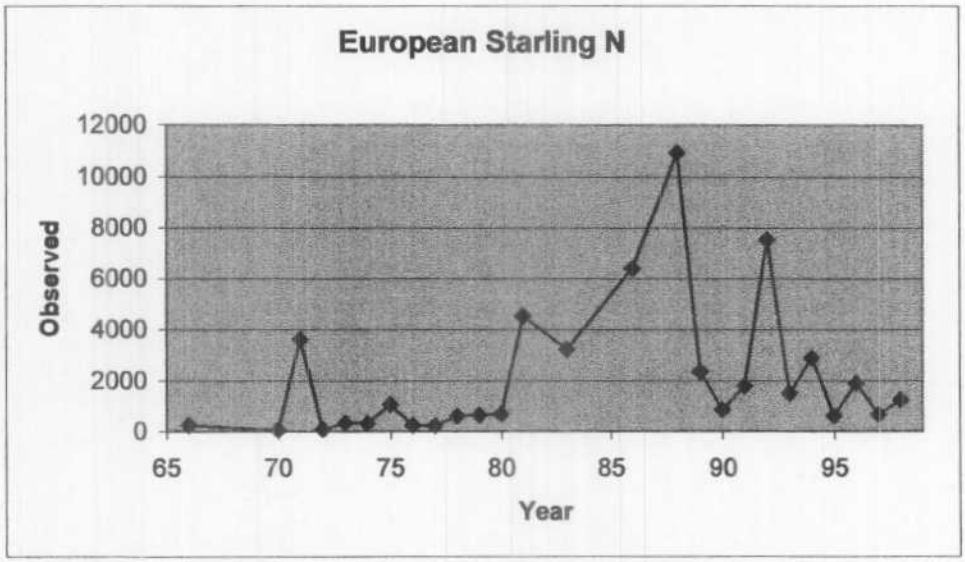
STURNIDAE



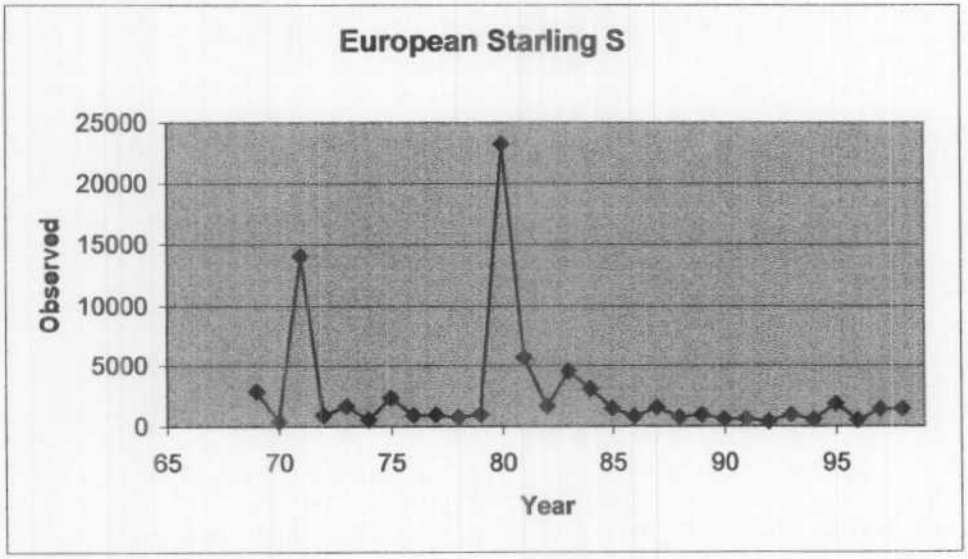
Mean 2076 Standard Deviation 2599



Mean 2562 Standard Deviation 4607

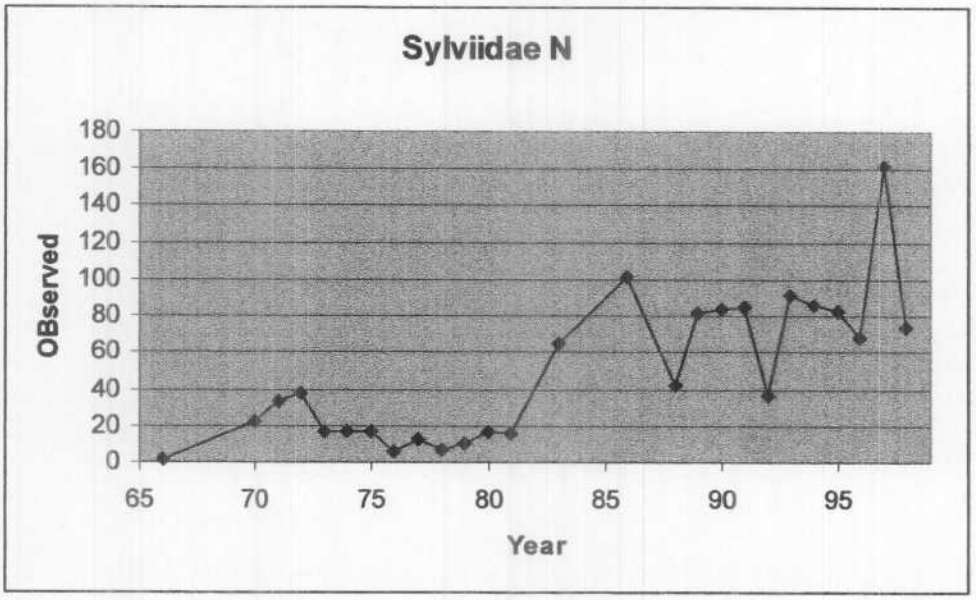


Mean 2076 Standard Deviation 2599

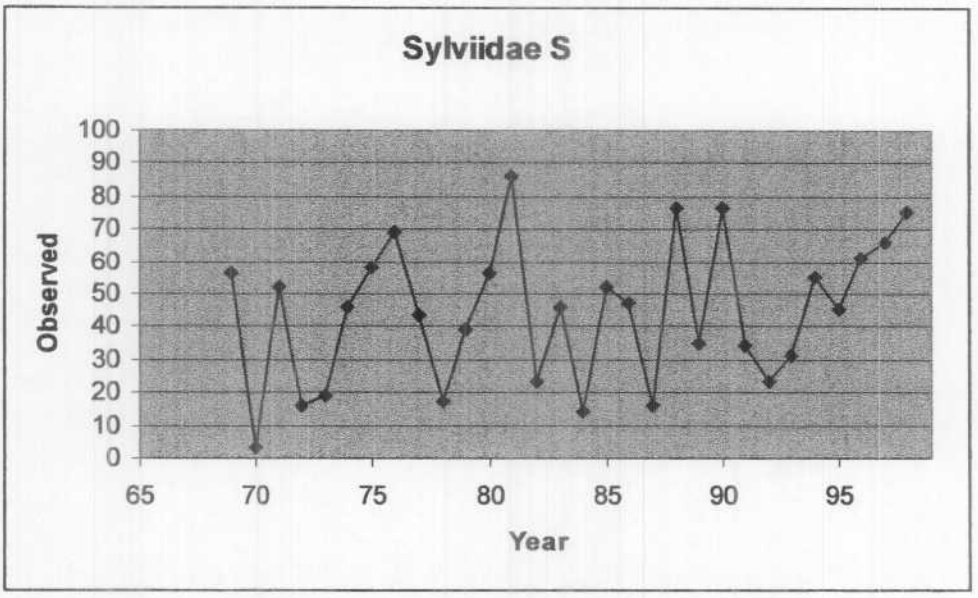


Mean 2562 Standard Deviation 4607

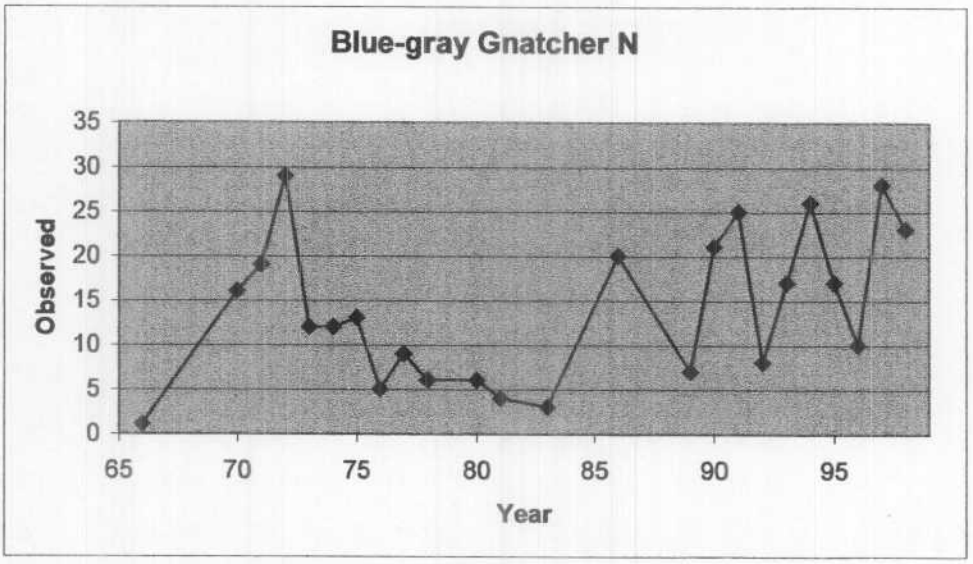
SYLVIIDAE



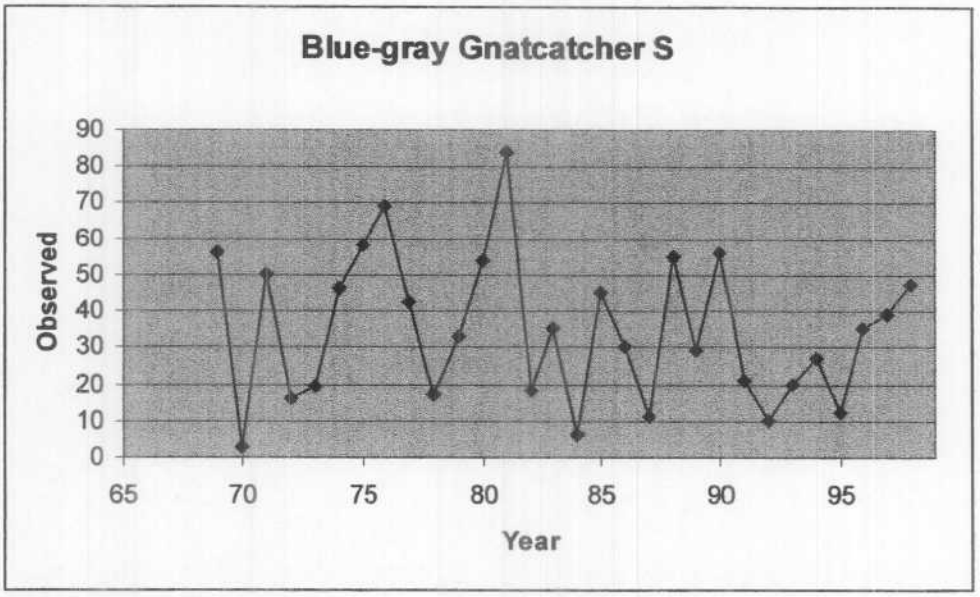
Mean 48 Standard Deviation 39



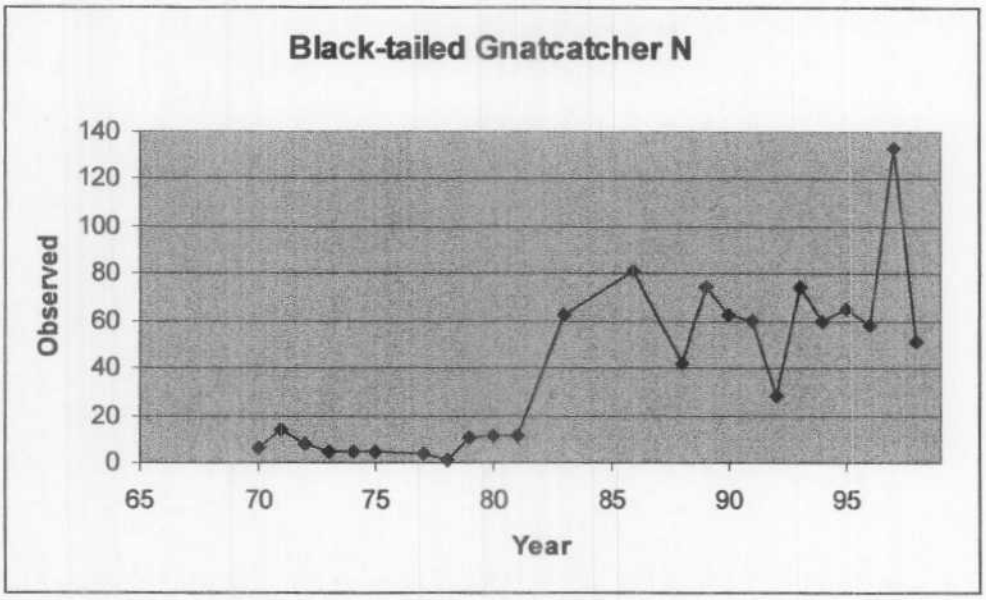
Mean 46 Standard Deviation 30



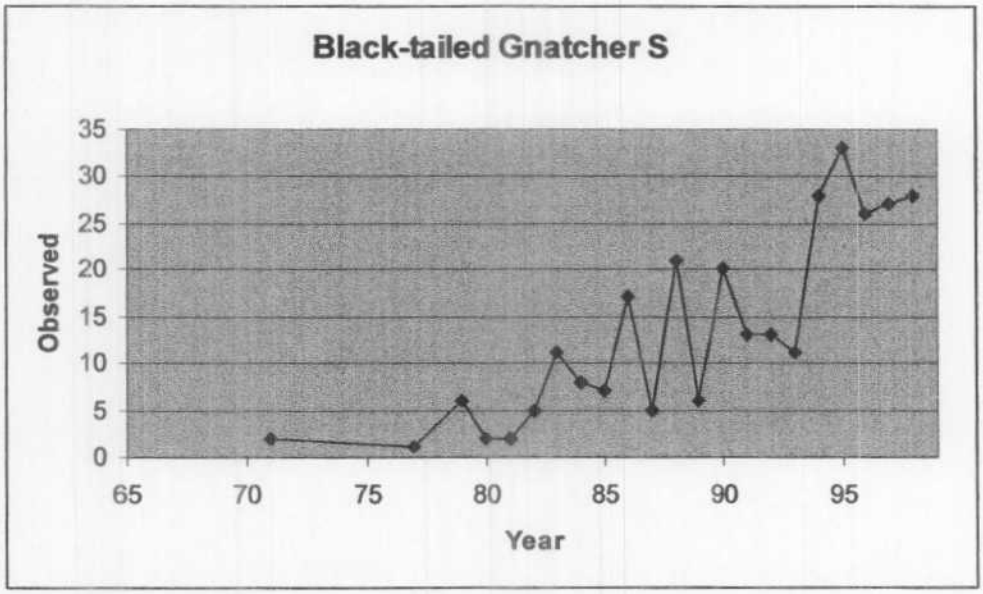
Mean 14 Standard Deviation 8



Mean 34 Standard Deviation 19

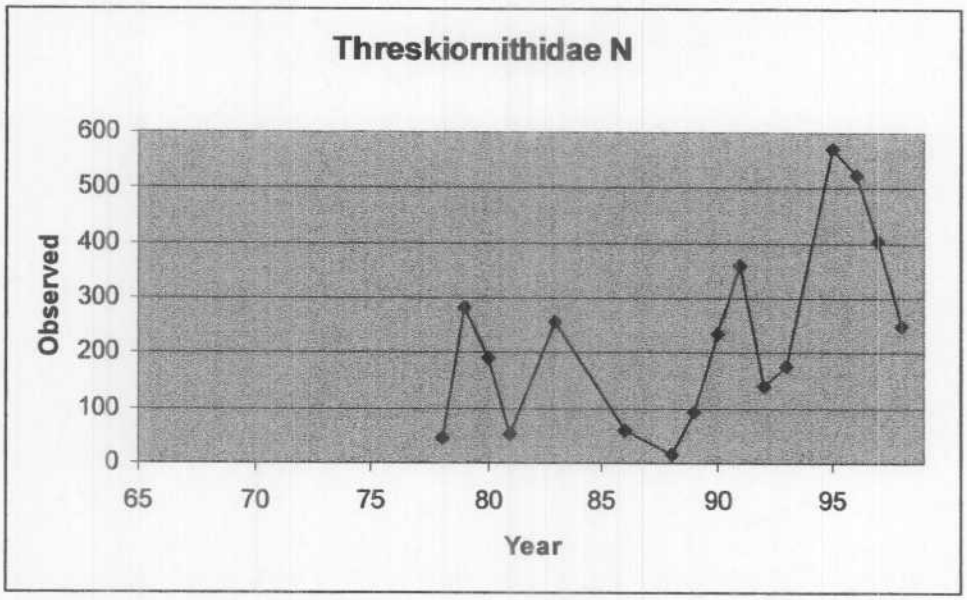


Mean 38 Standard Deviation 34

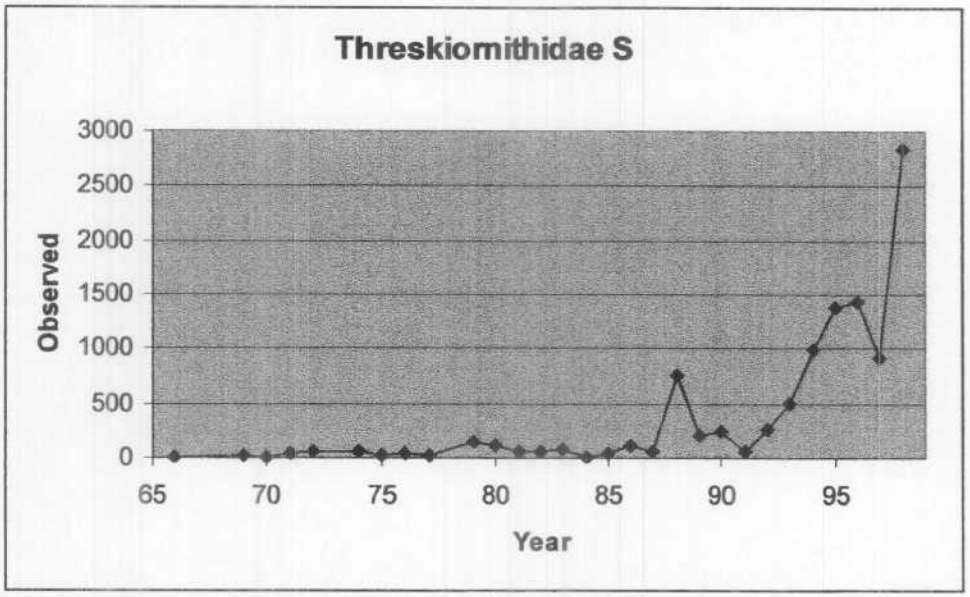


Mean 13 Standard Deviation 9

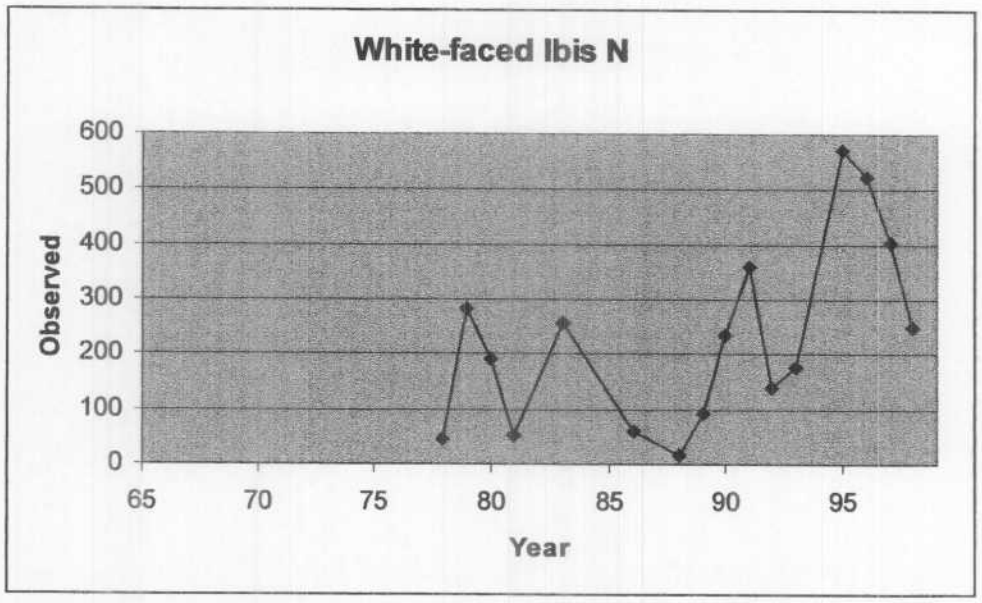
THRESKIORNITHIDAE



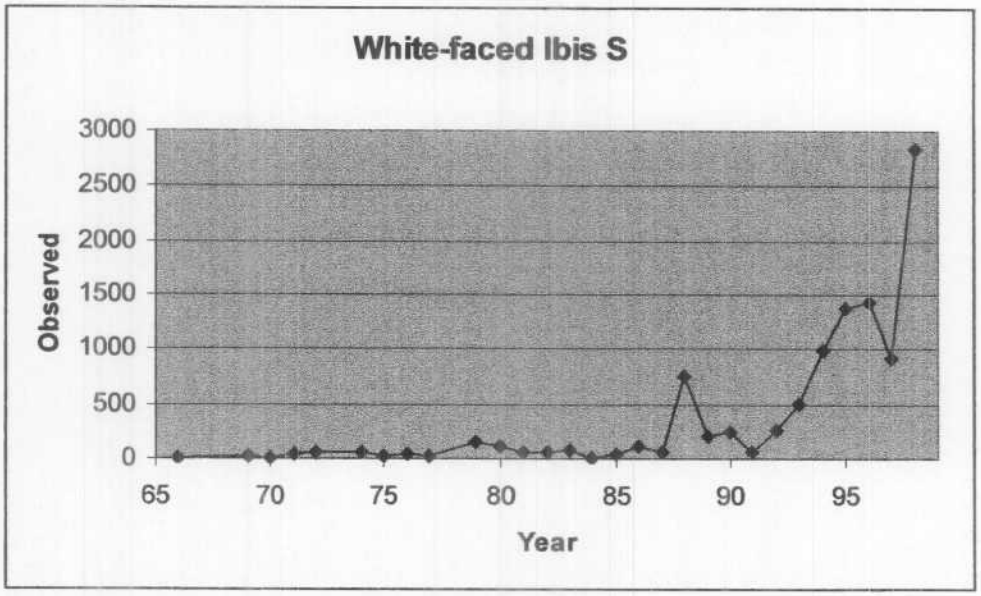
Mean 227 Standard Deviation 163



Mean 359 Standard Deviation 618

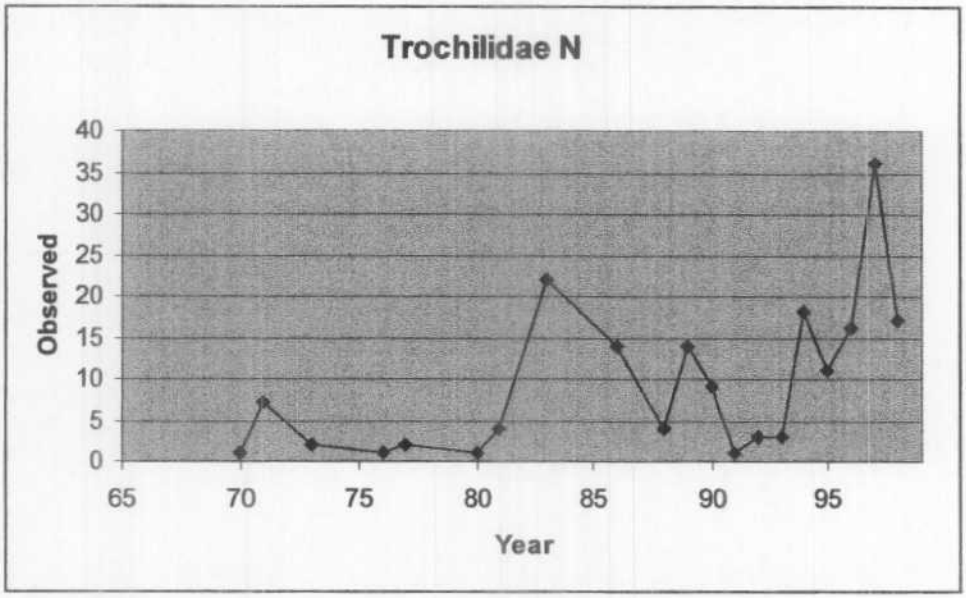


Mean 227 Standard Deviation 163

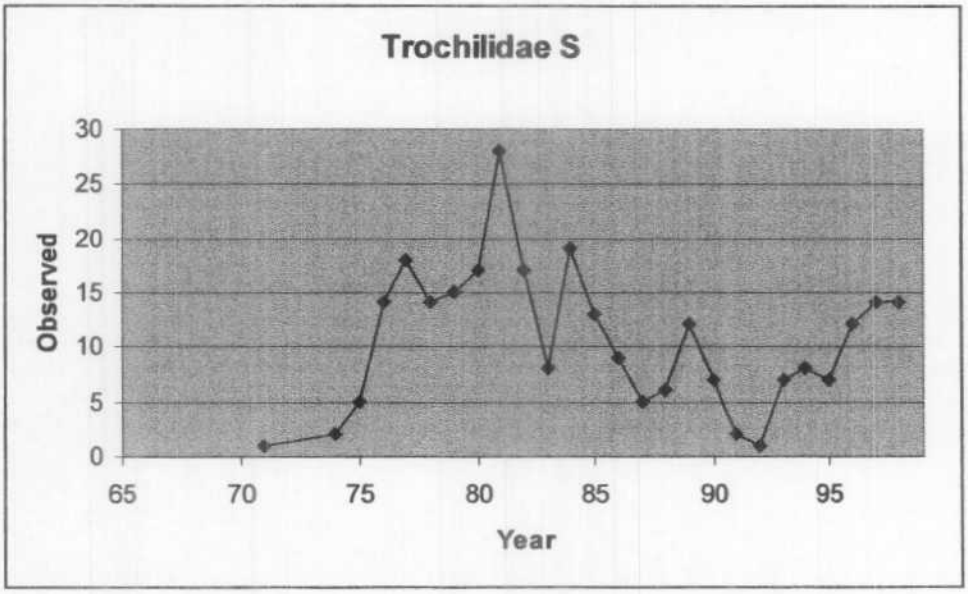


Mean 509 Standard Deviation 694

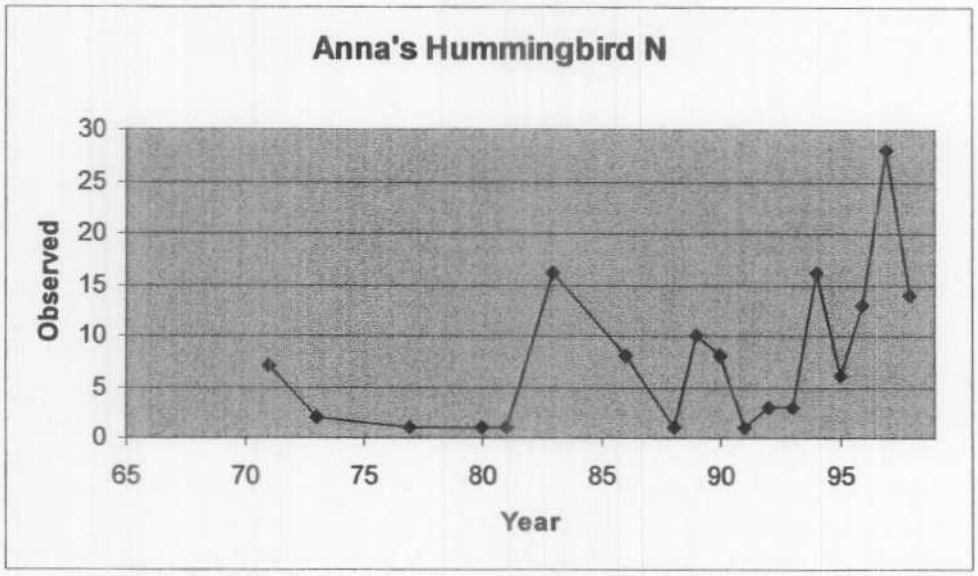
TROCHILIDAE



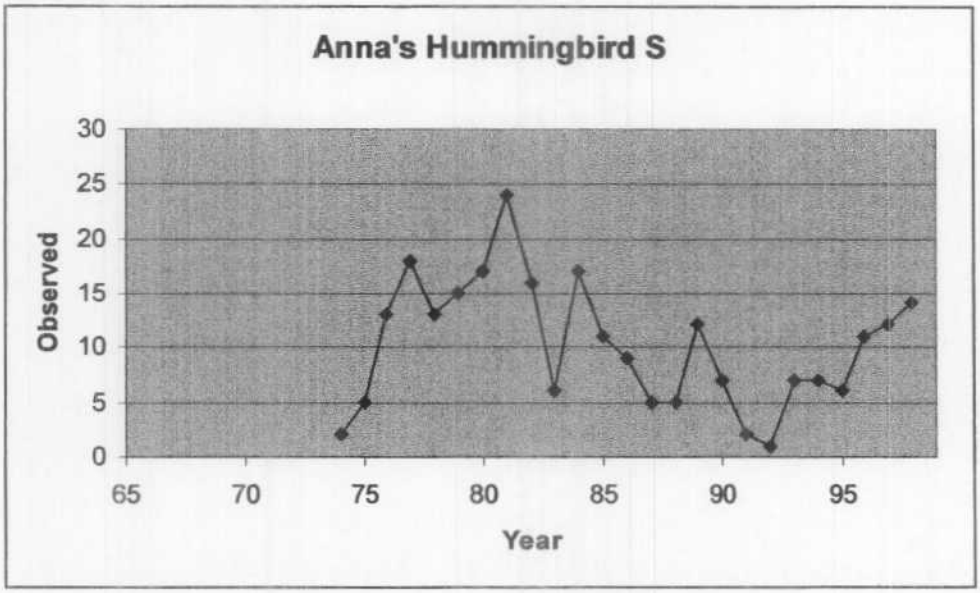
Mean 9 Standard Deviation 9



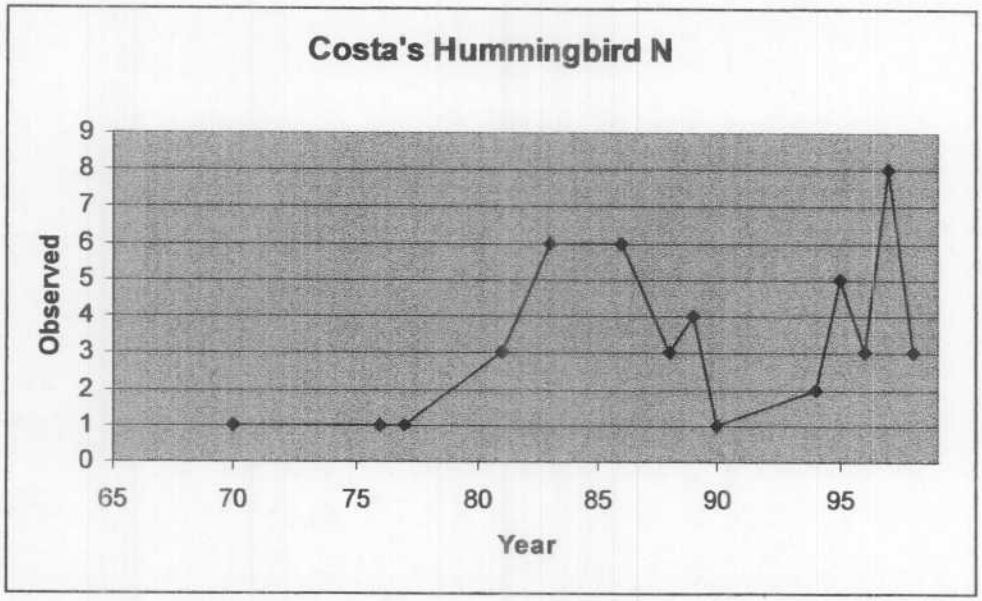
Mean 10 Standard Deviation 6



Mean 7 Standard Deviation 7



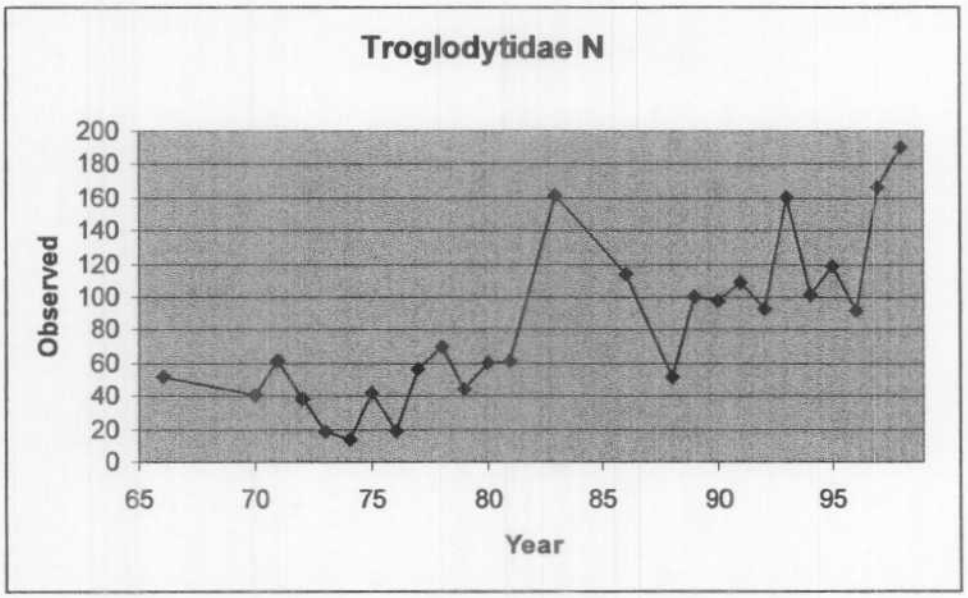
Mean 10 Standard Deviation 5



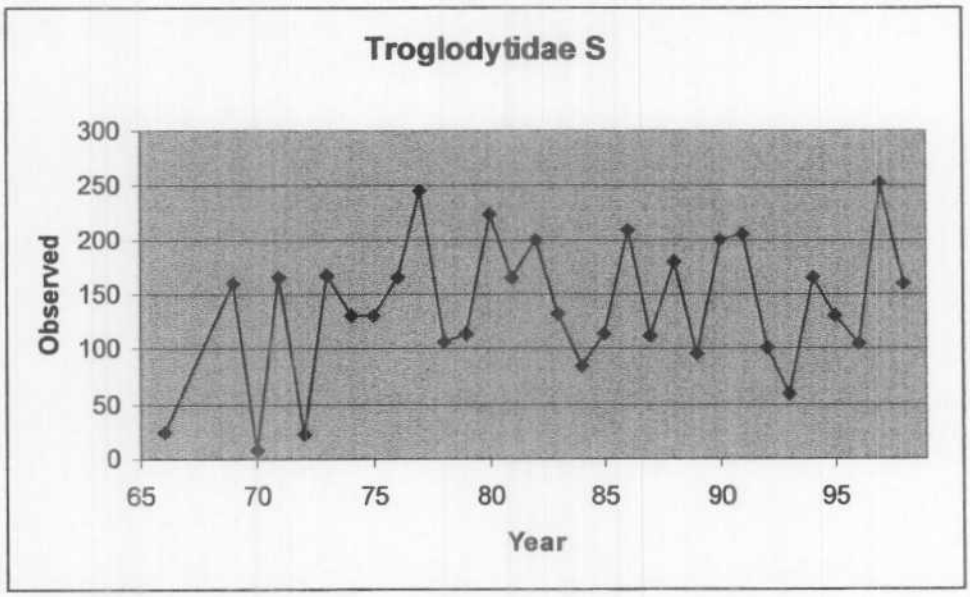
Mean 3

Standard Deviation 2

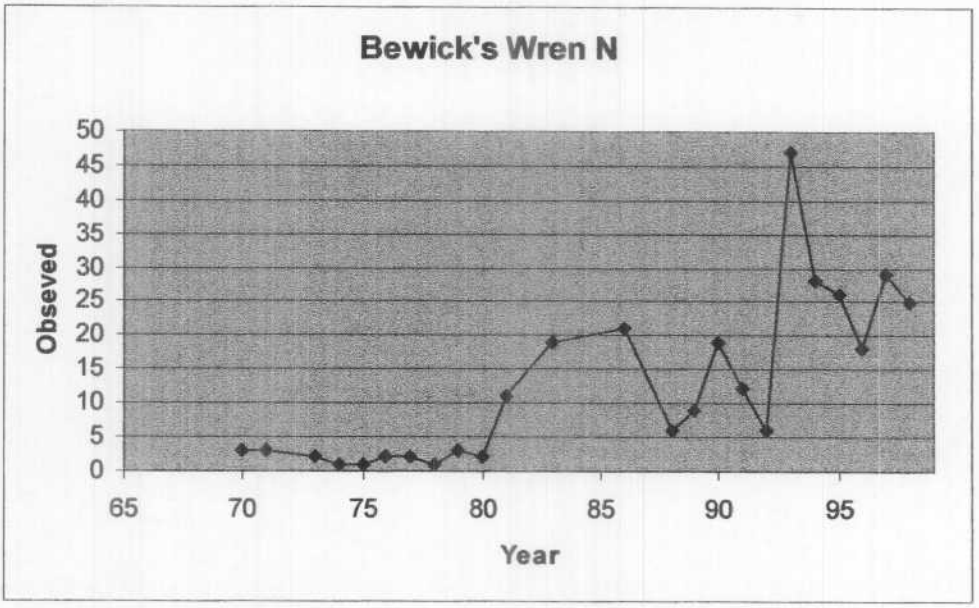
TROGLODYTIDAE



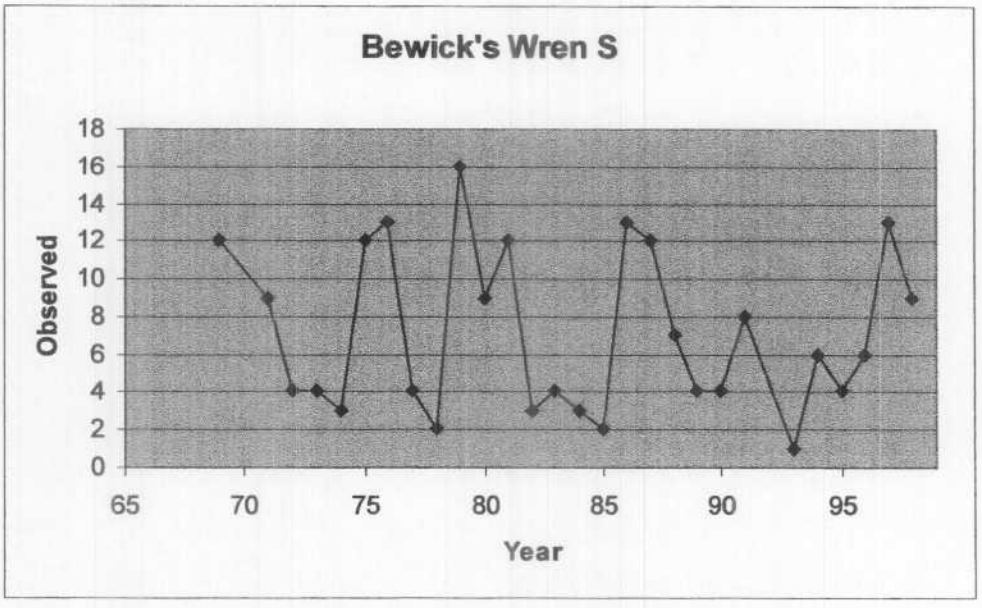
Mean 81 Standard Deviation 47



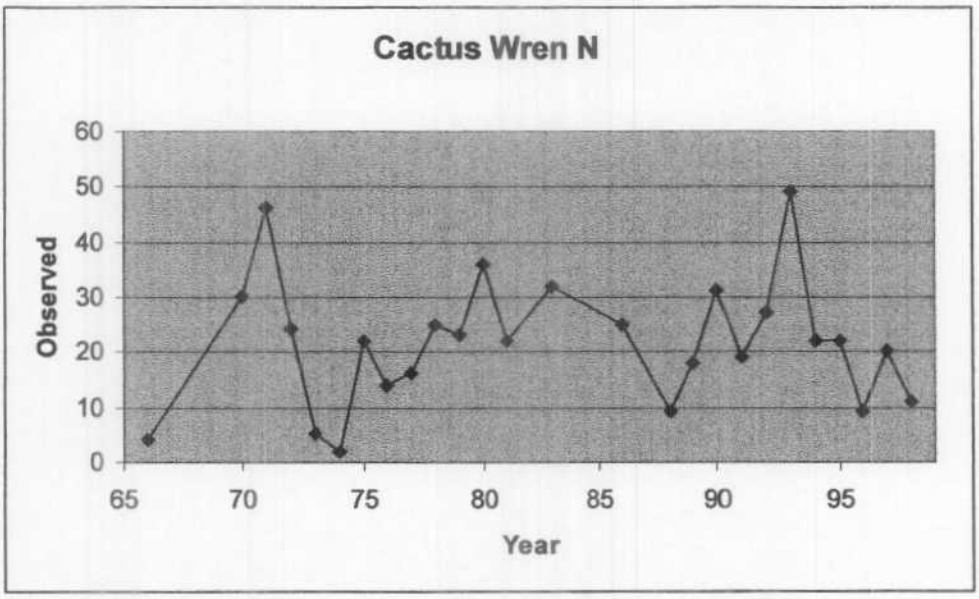
Mean 139 Standard Deviation 61



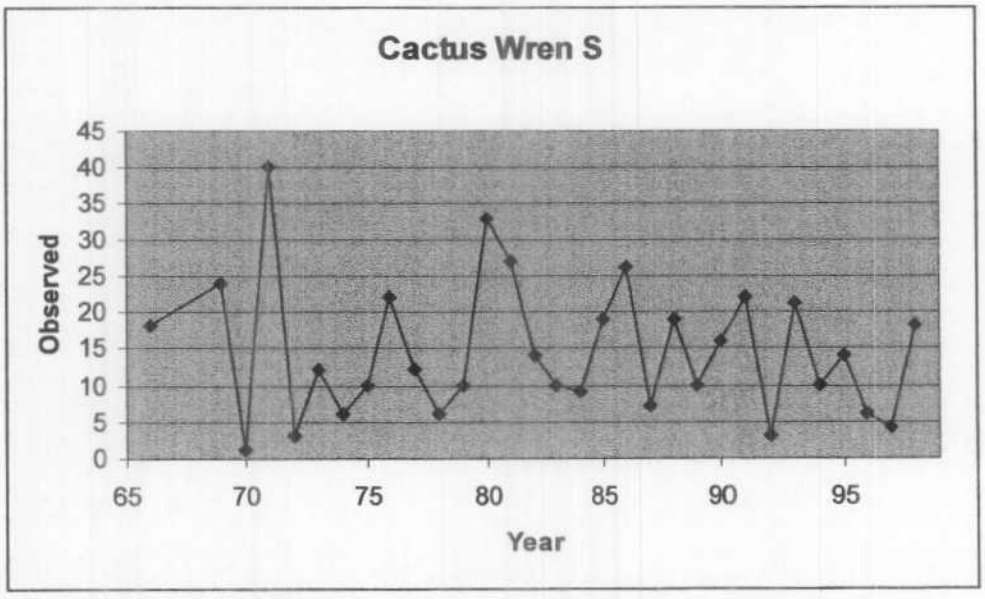
Mean 12 Standard Deviation 11



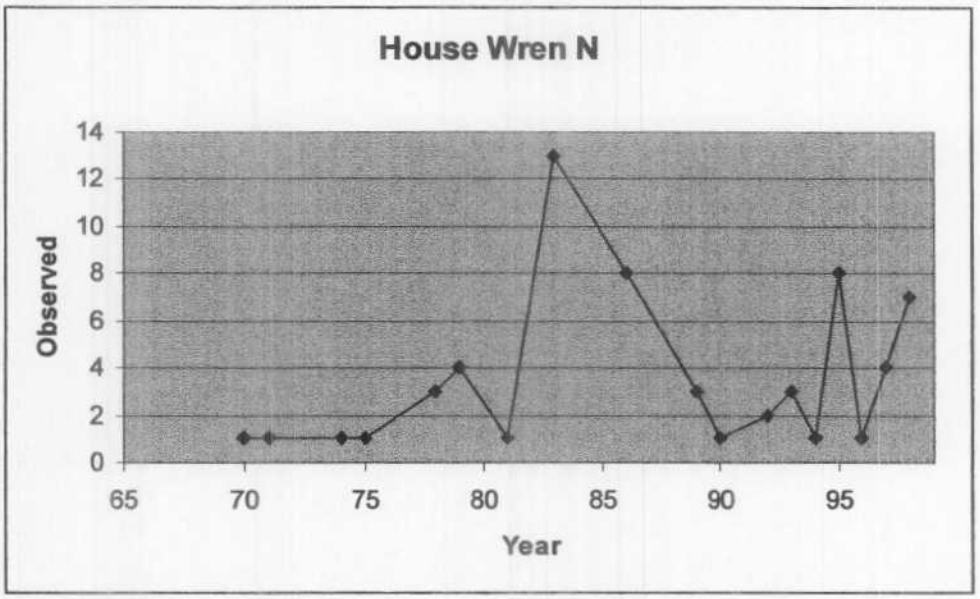
Mean 7 Standard Deviation 4



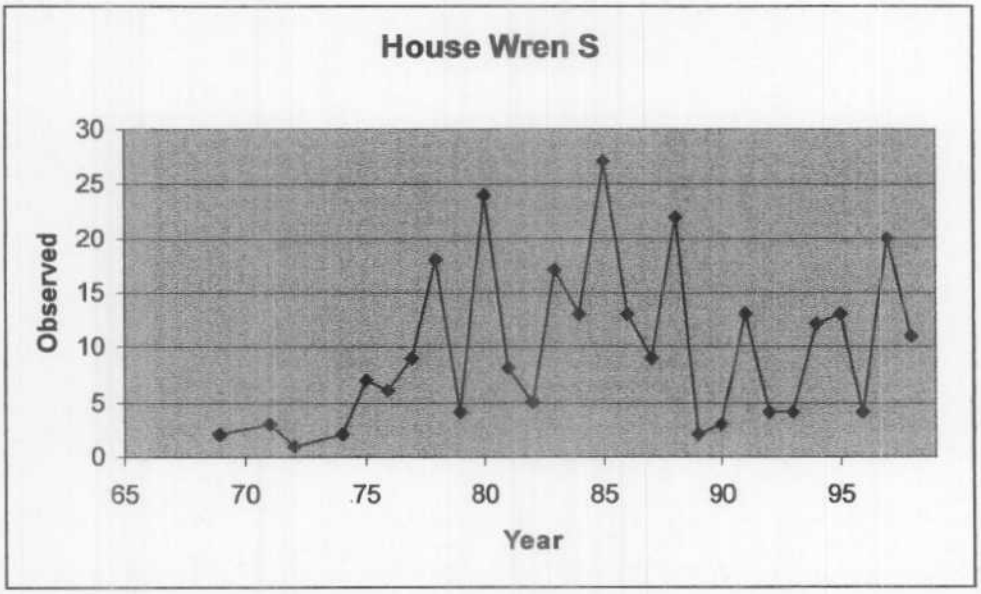
Mean 21 Standard Deviation 11



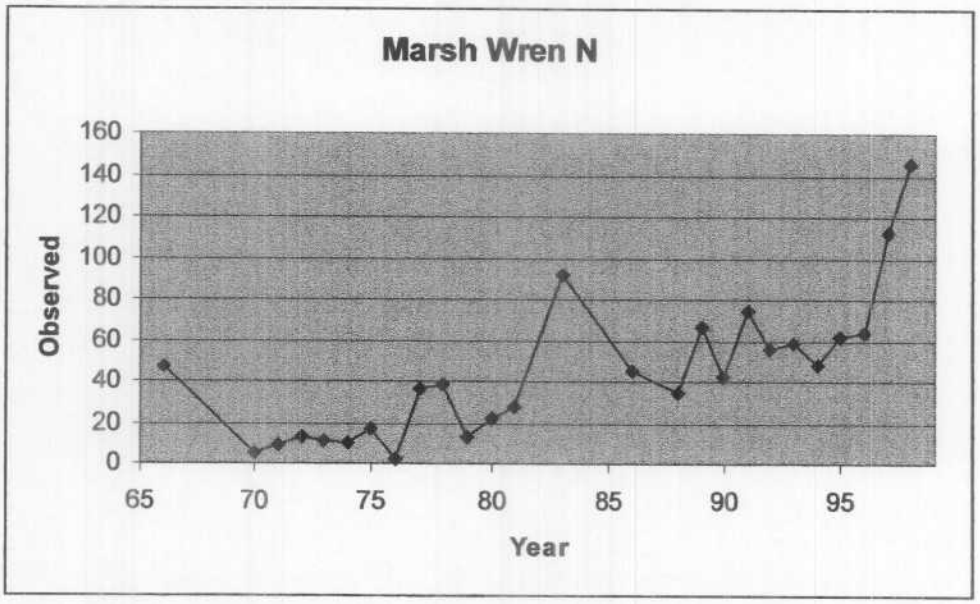
Mean 14 Standard Deviation 9



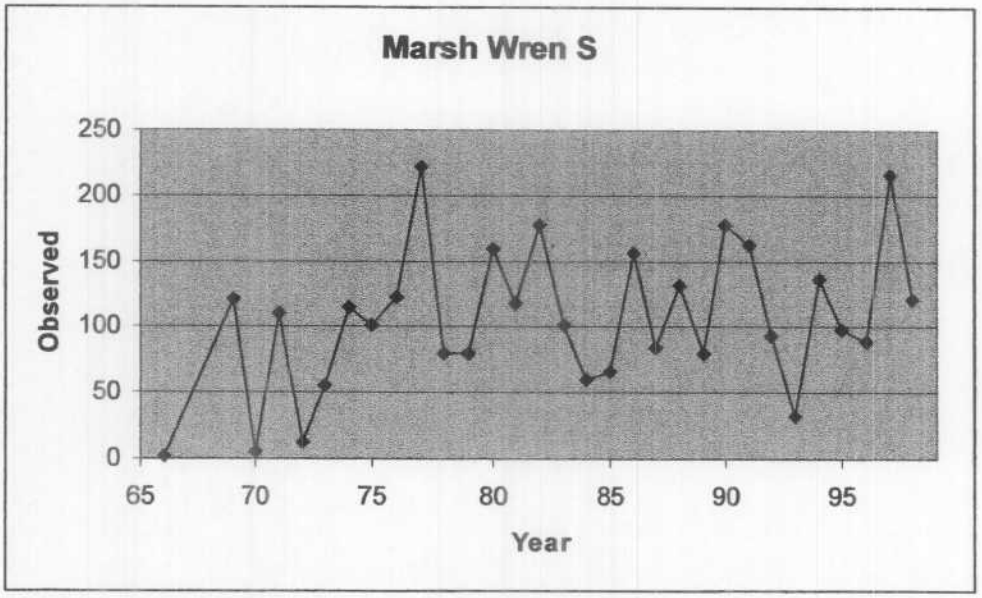
Mean 3 Standard Deviation 3



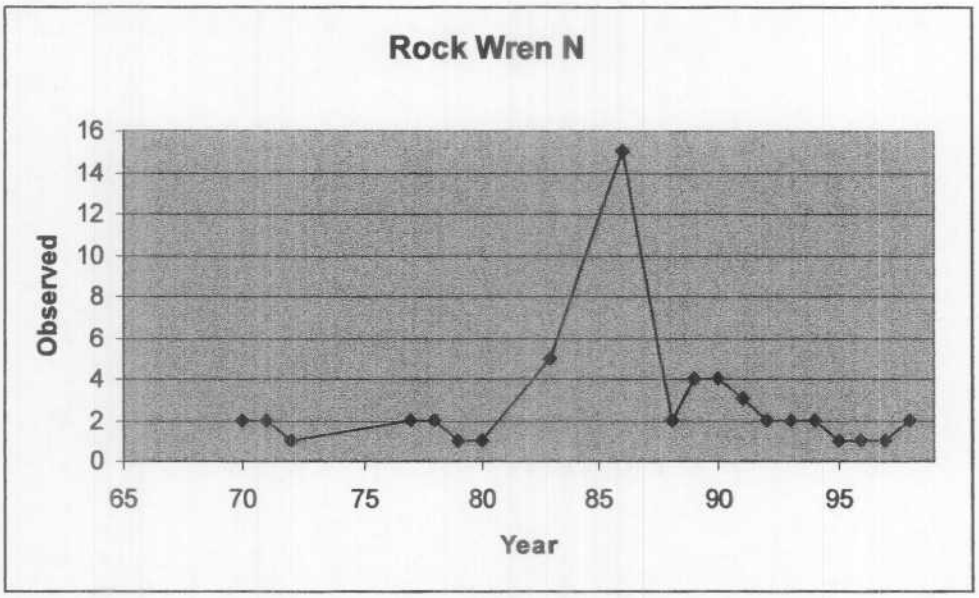
Mean 9 Standard Deviation 7



Mean 44 Standard Deviation 33



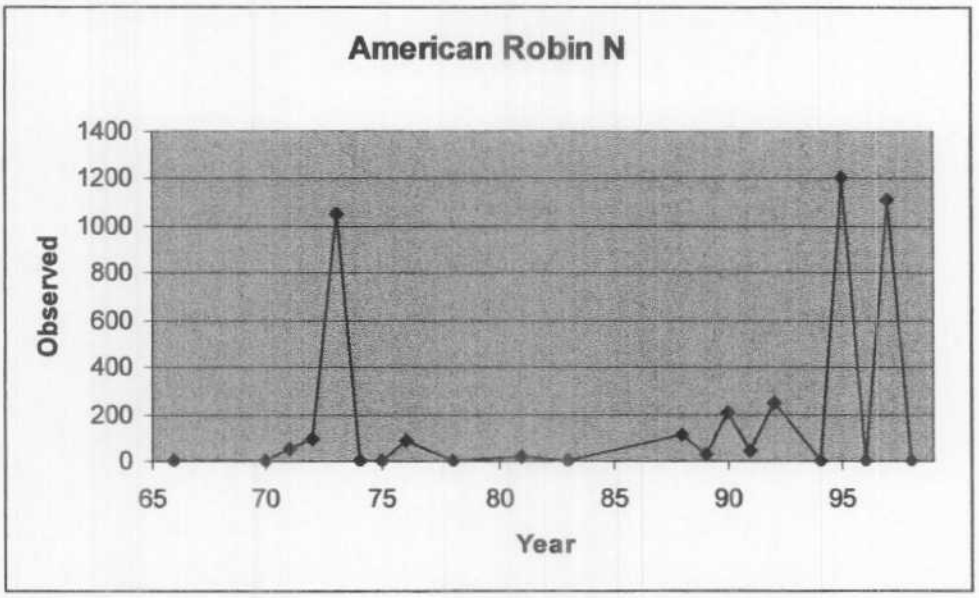
Mean 105 Standard Deviation 54



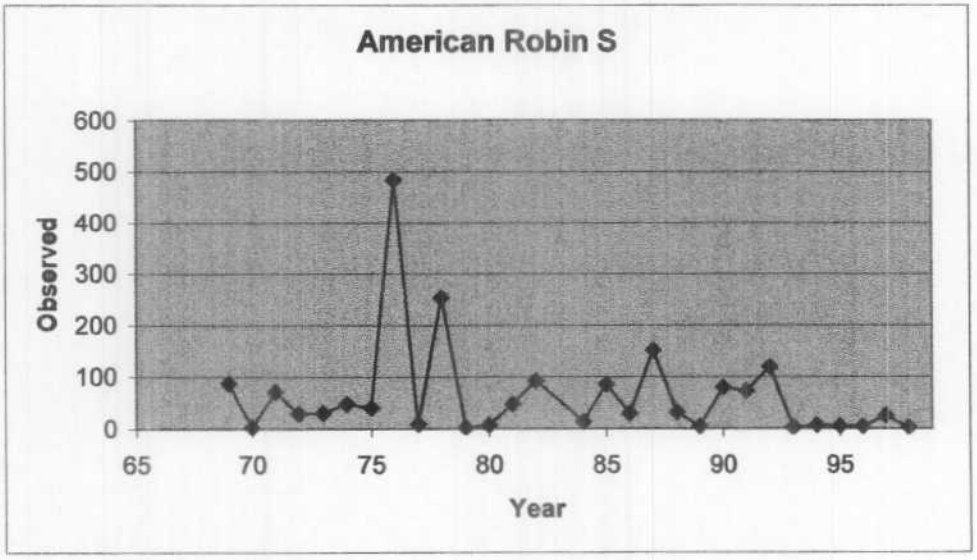
Mean 2

Standard Deviation 3

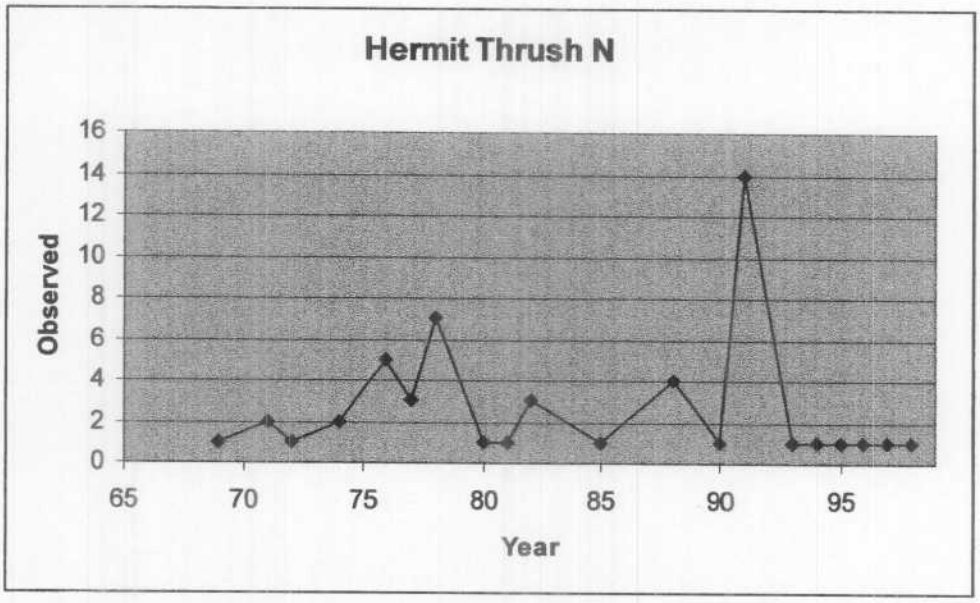
TURDIDAE



Mean 203 Standard Deviation 381

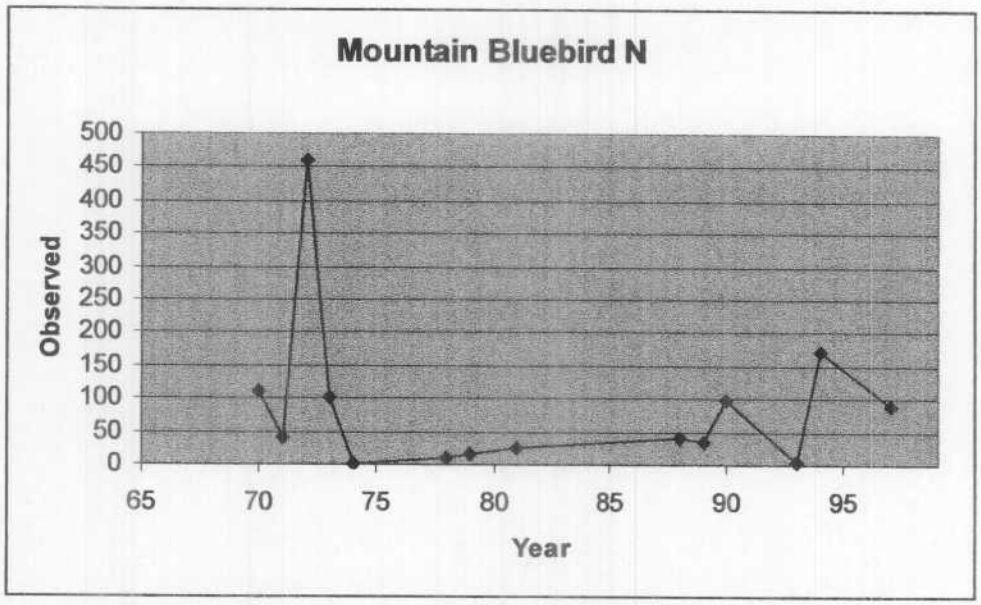


Mean 62 Standard Deviation 96

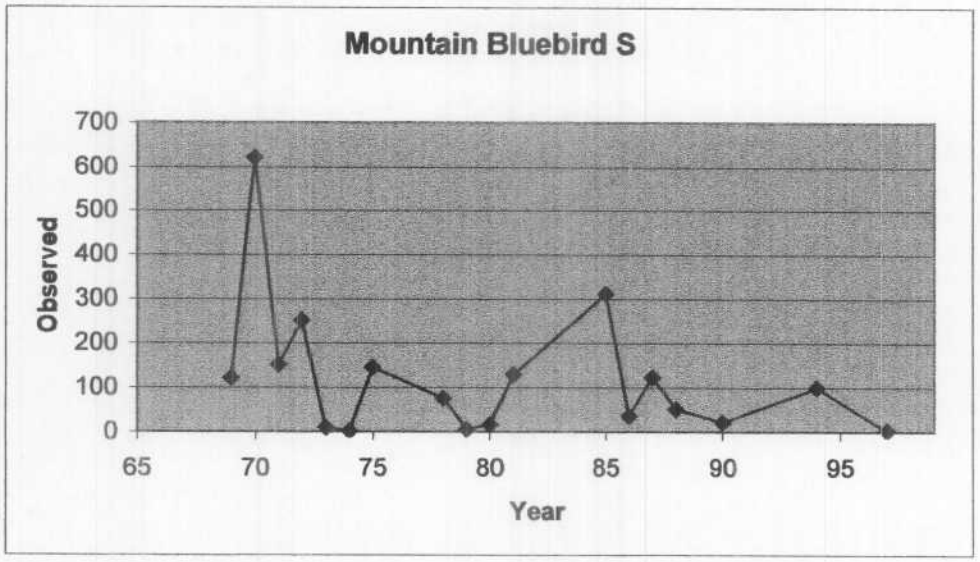


Mean 2

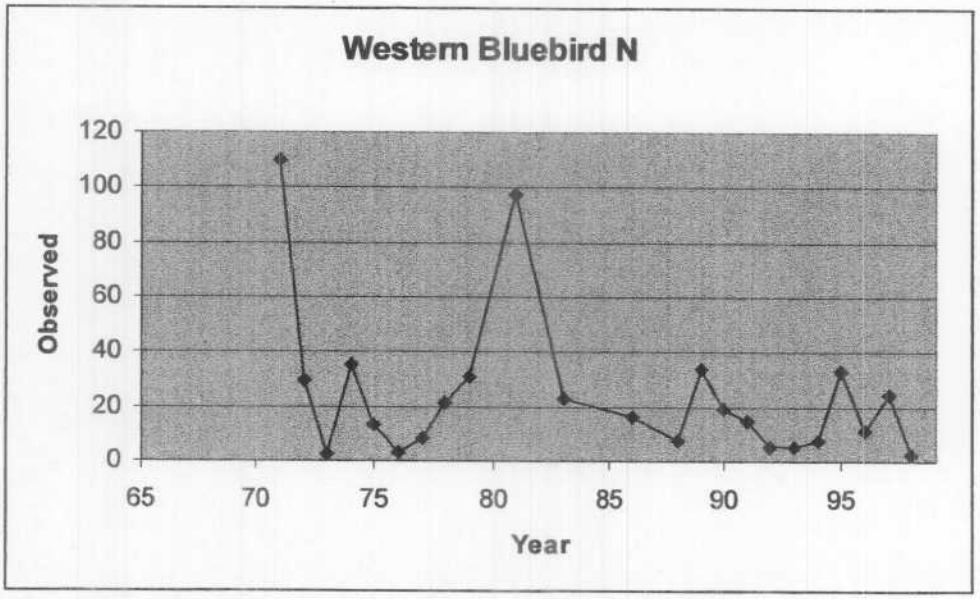
Standard Deviation 3



Mean 85 Standard Deviation 114



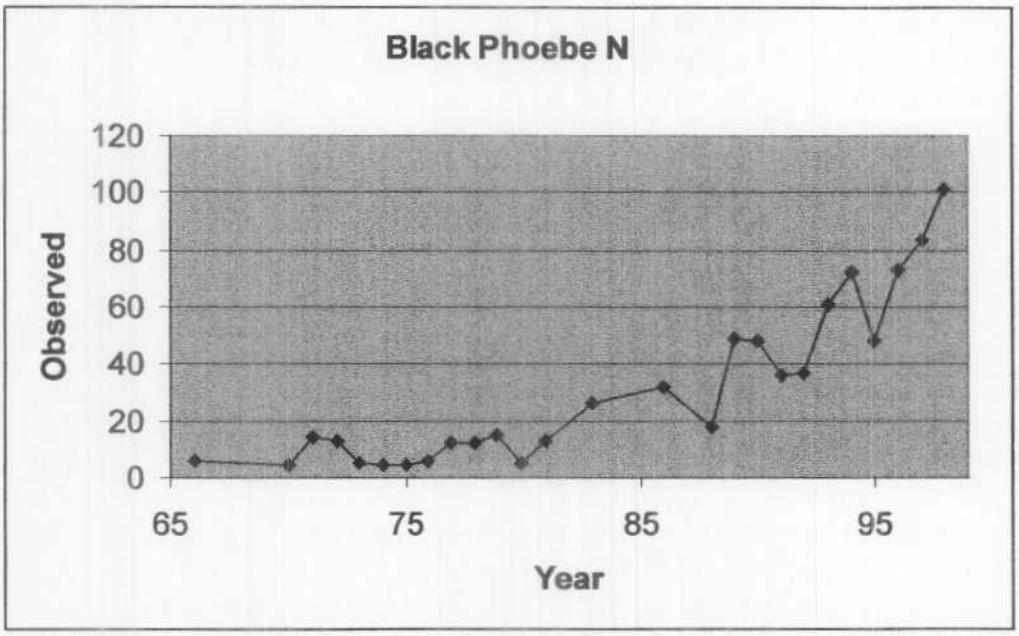
Mean 119 Standard Deviation 148



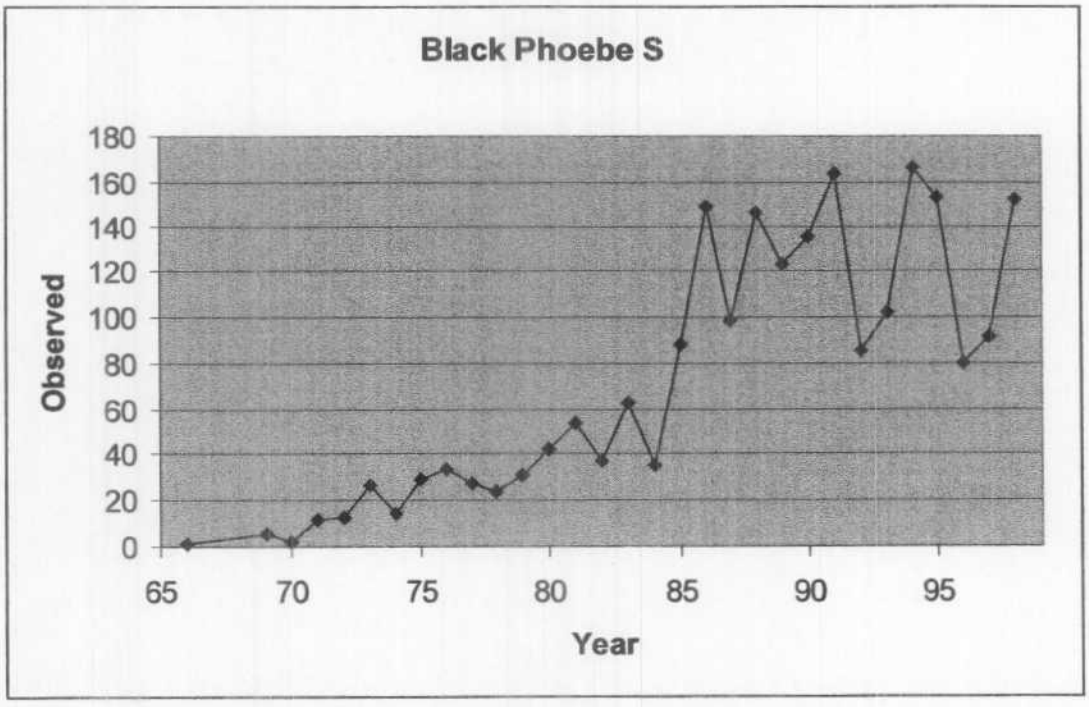
Mean 23

Standard Deviation 26

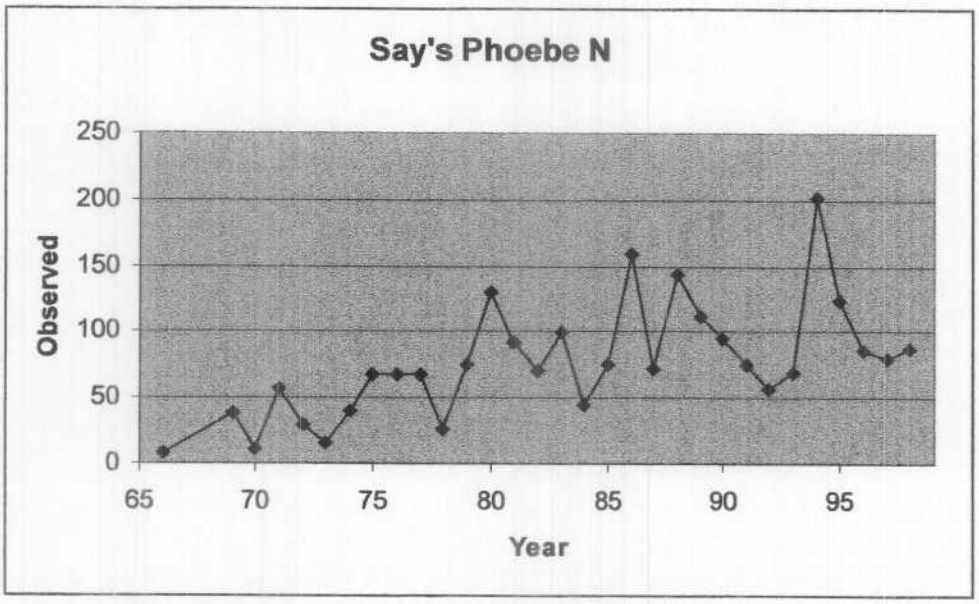
TYRANNIDAE



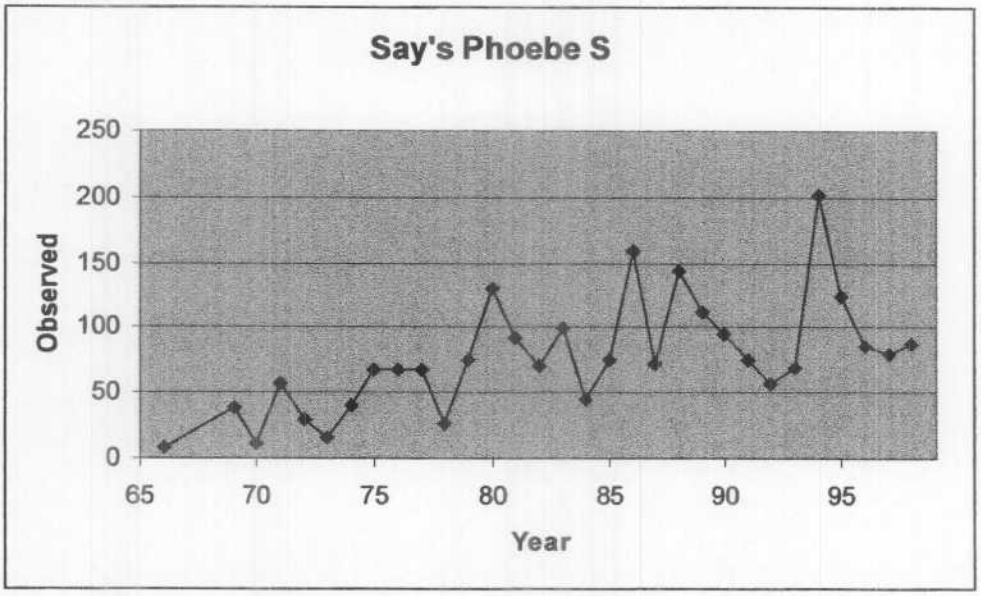
Mean 30 Standard Deviation 27



Mean 70 Standard Deviation 54

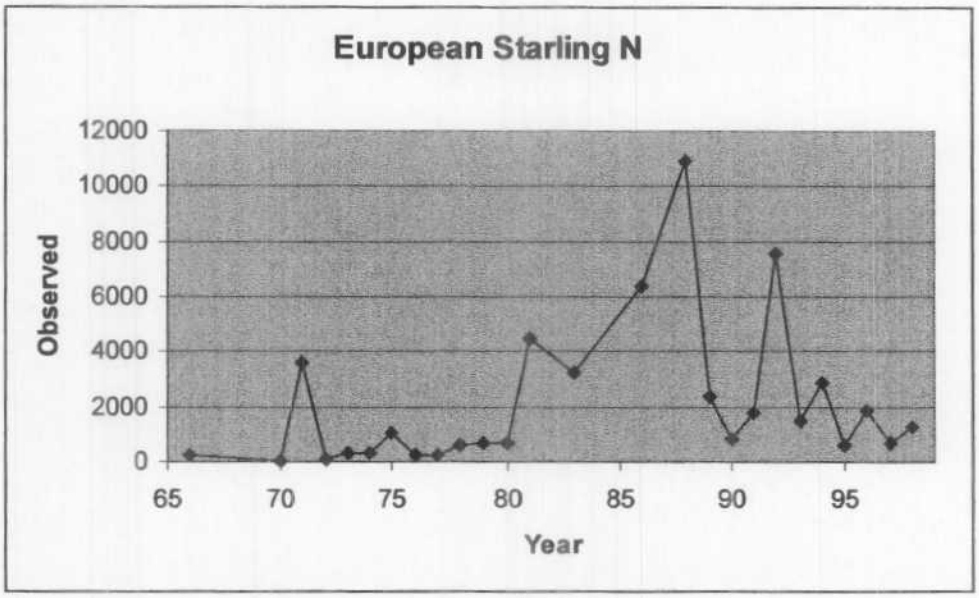


Mean 25 Standard Deviation 45

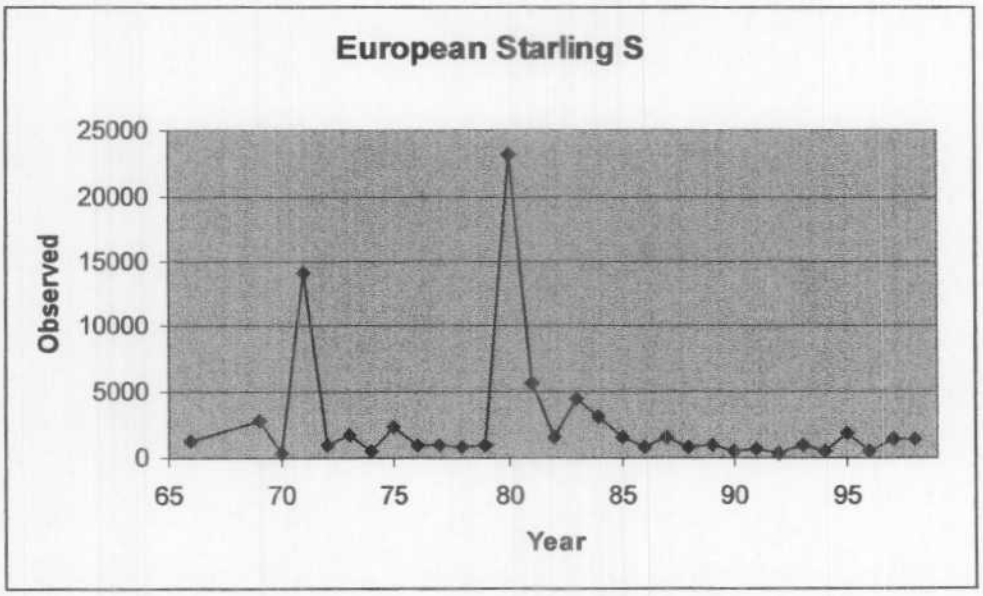


Mean 76 Standard Deviation 42

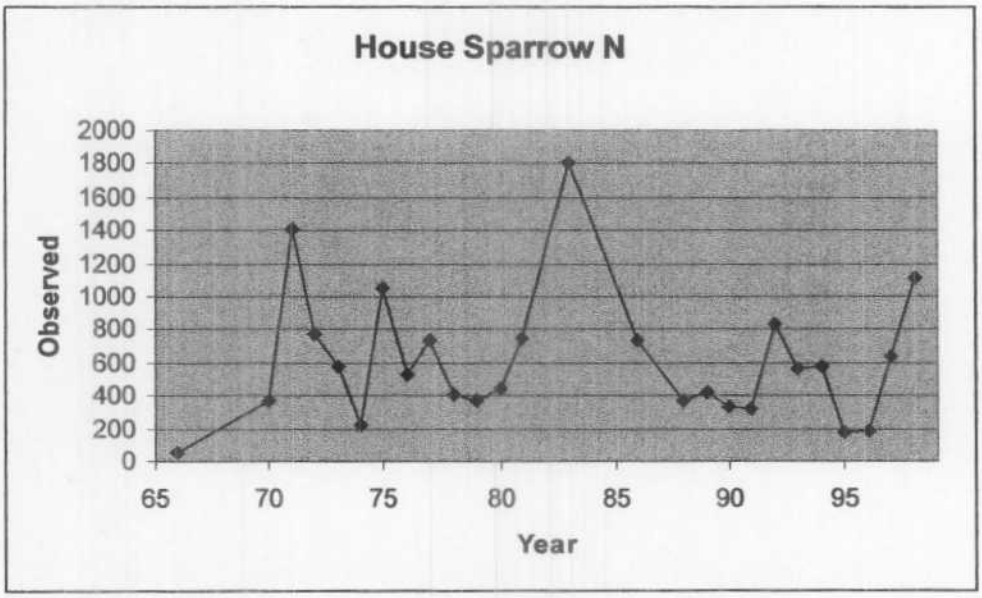
NON-NATIVE SPECIES



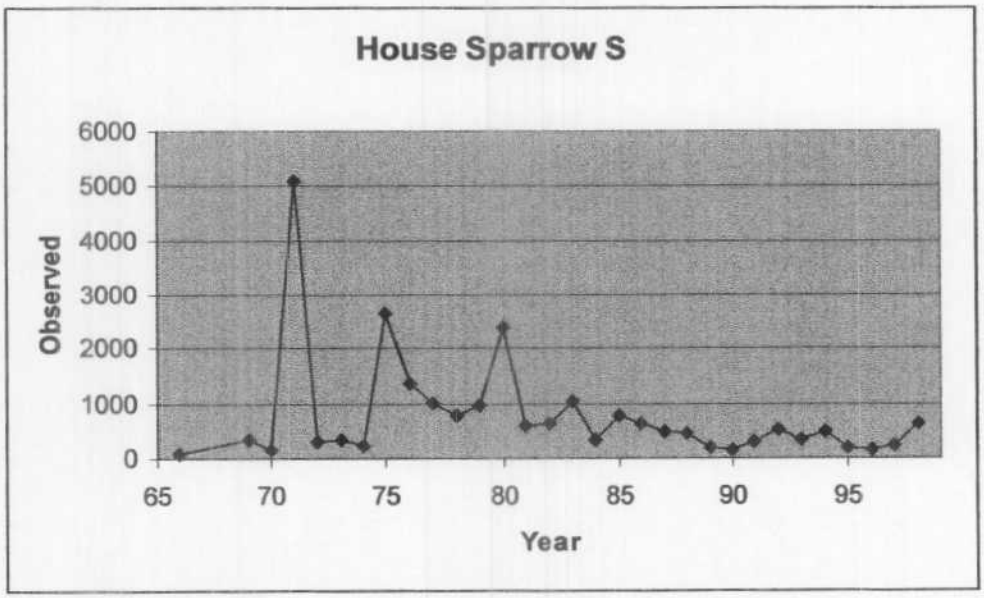
Mean 2076 Standard Deviation 2599



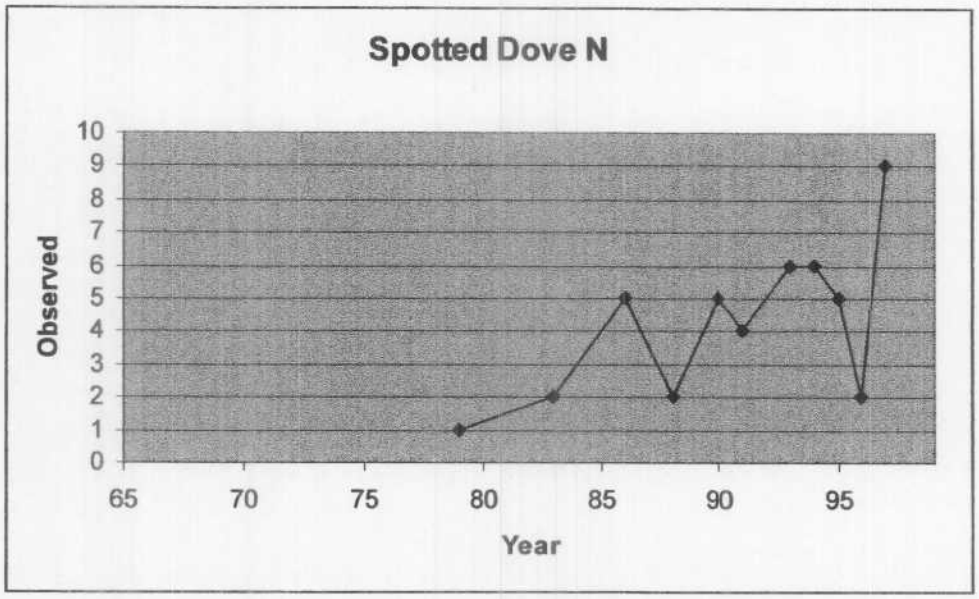
Mean 2518 Standard Deviation 4467



Mean 601 Standard Deviation 387



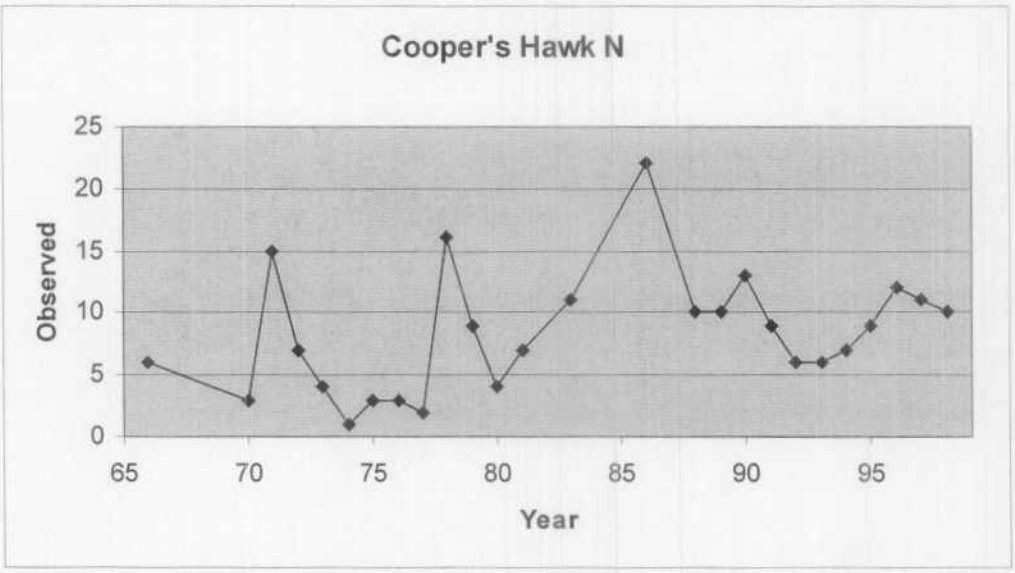
Mean 757 Standard Deviation 981



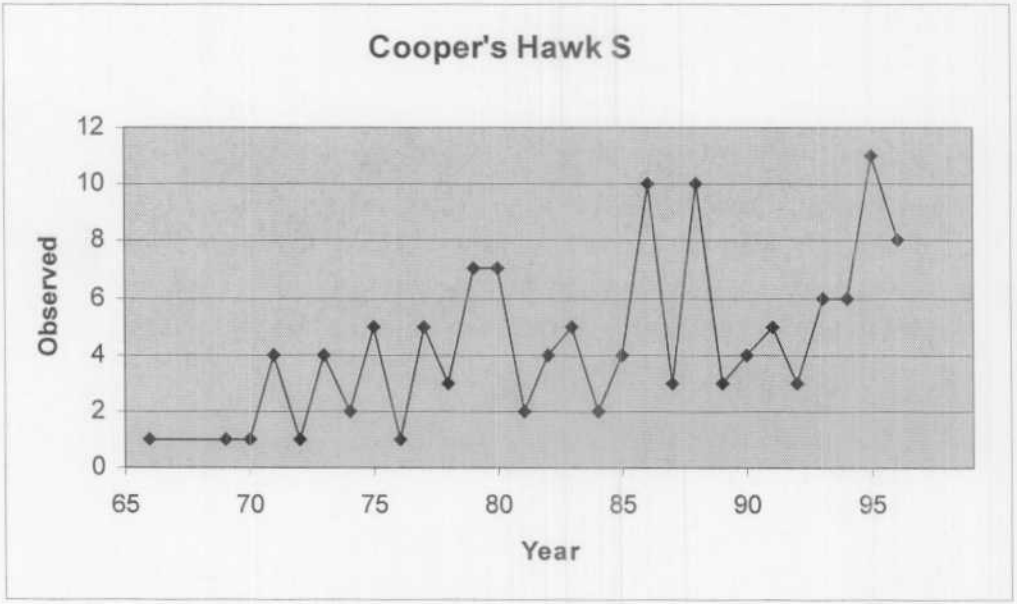
Mean 4

Standard Deviation 2

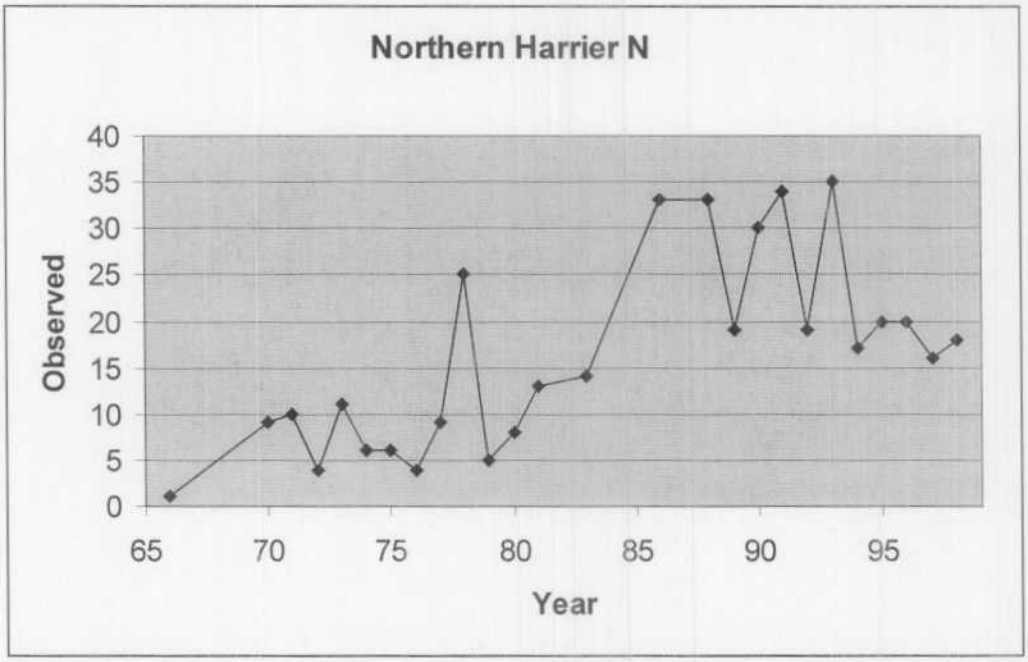
Accipitridae



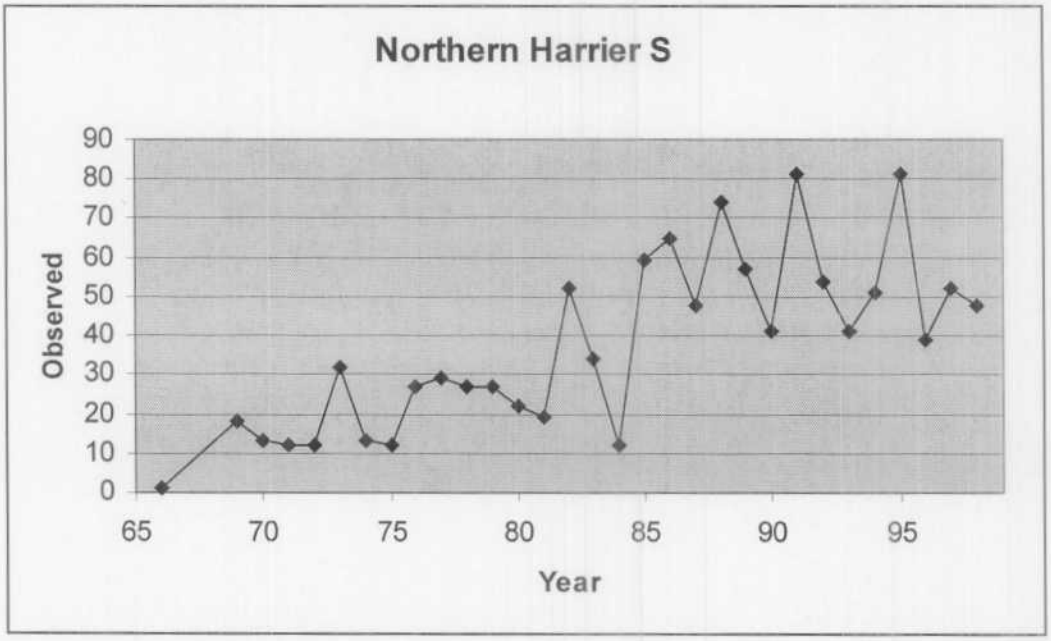
Mean 8 Standard Deviation 4



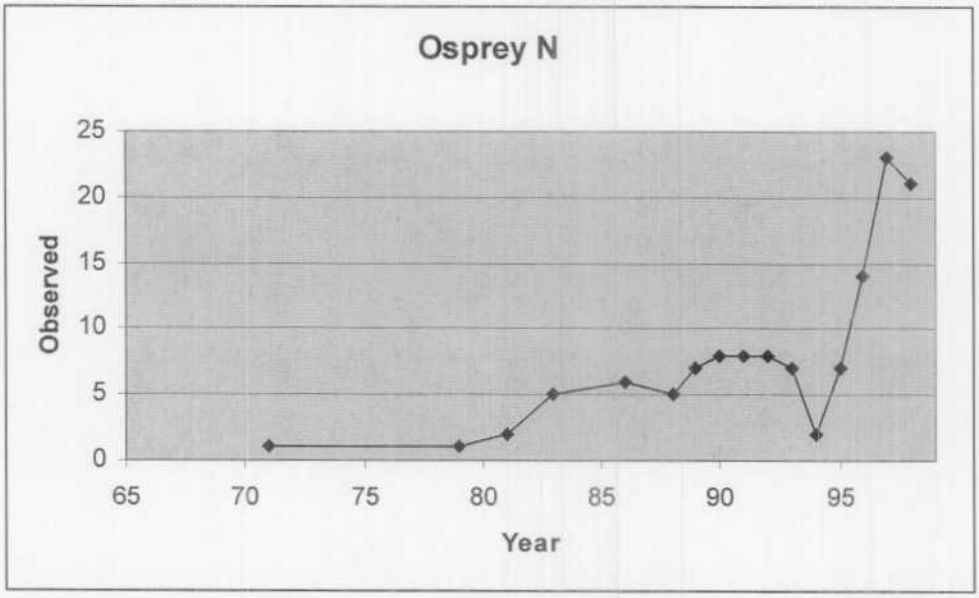
Mean 4 Standard Deviation 3



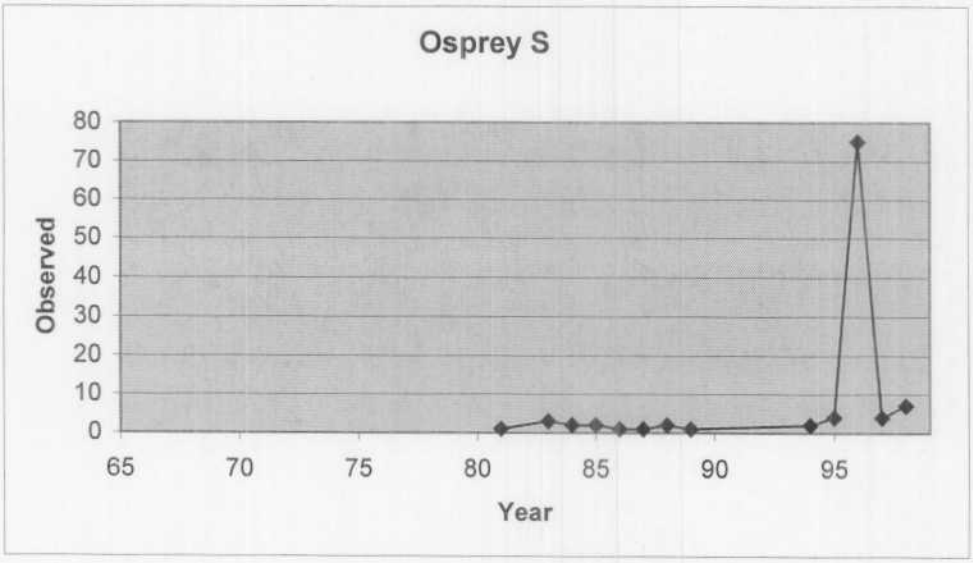
Mean 16 Standard Deviation 10



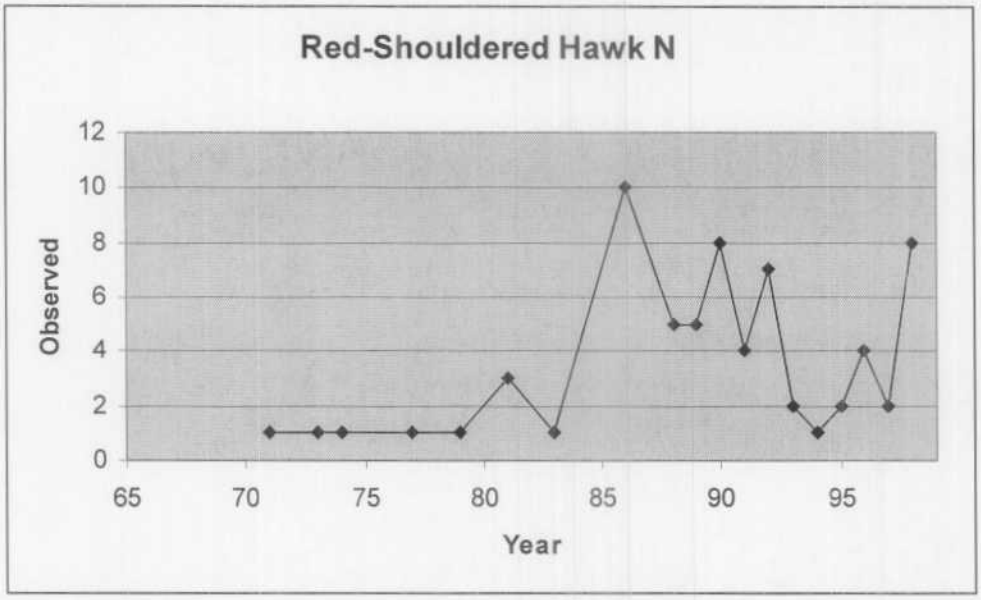
Average 37 Standard Deviation 21



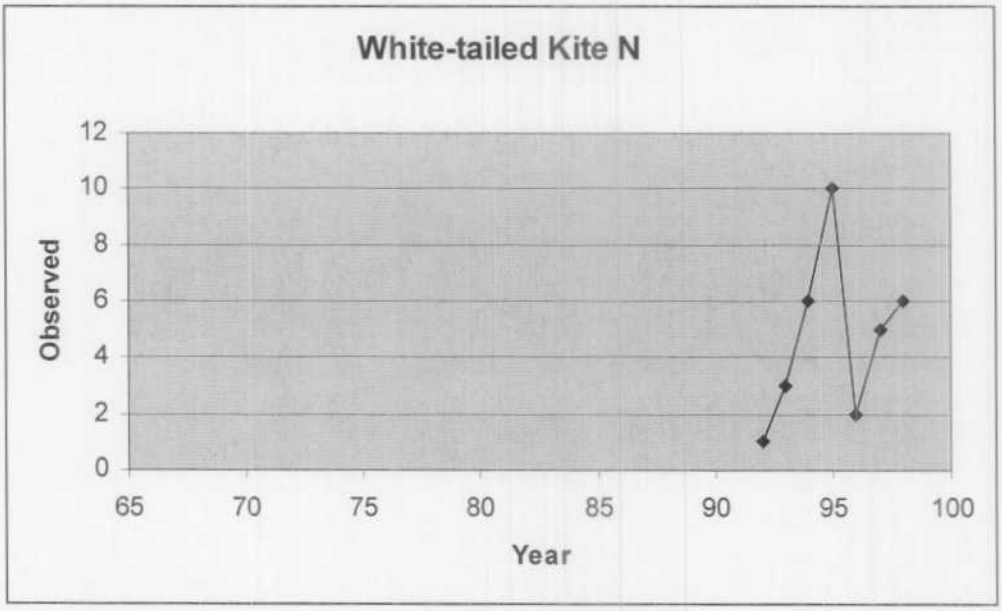
Mean 7 Standard Deviation 6



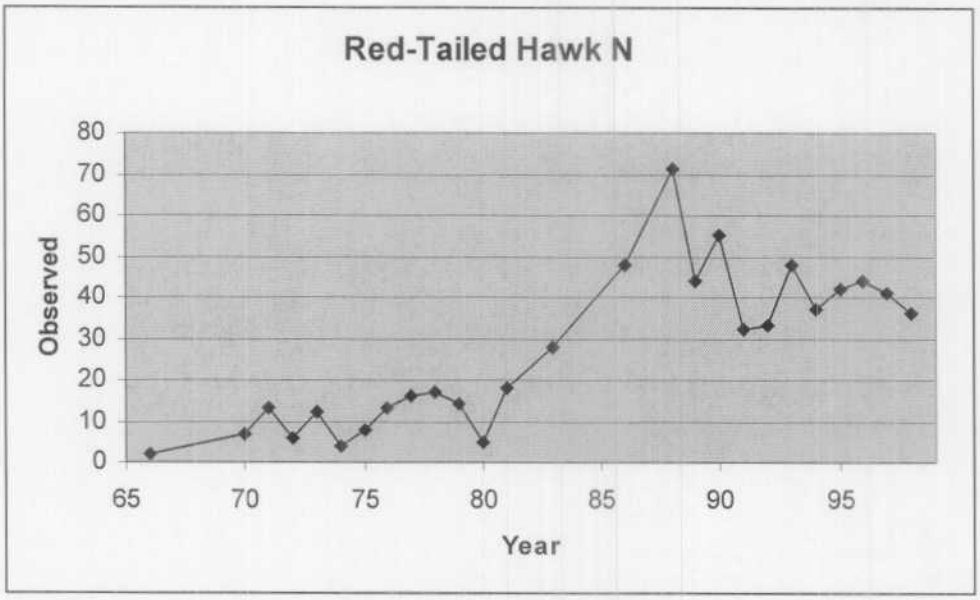
Mean 19 Standard Deviation 8



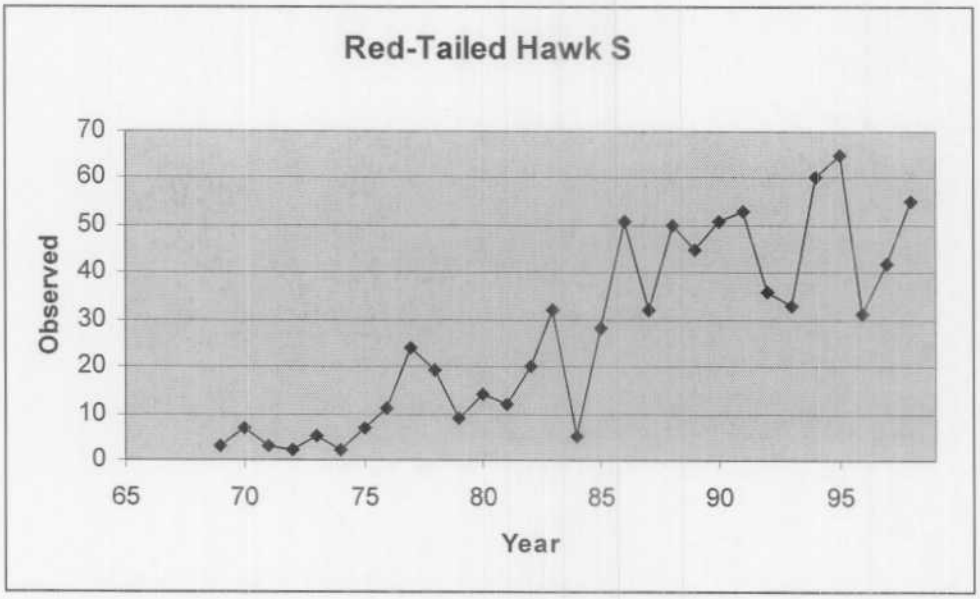
Mean 3 Standard Deviation 2



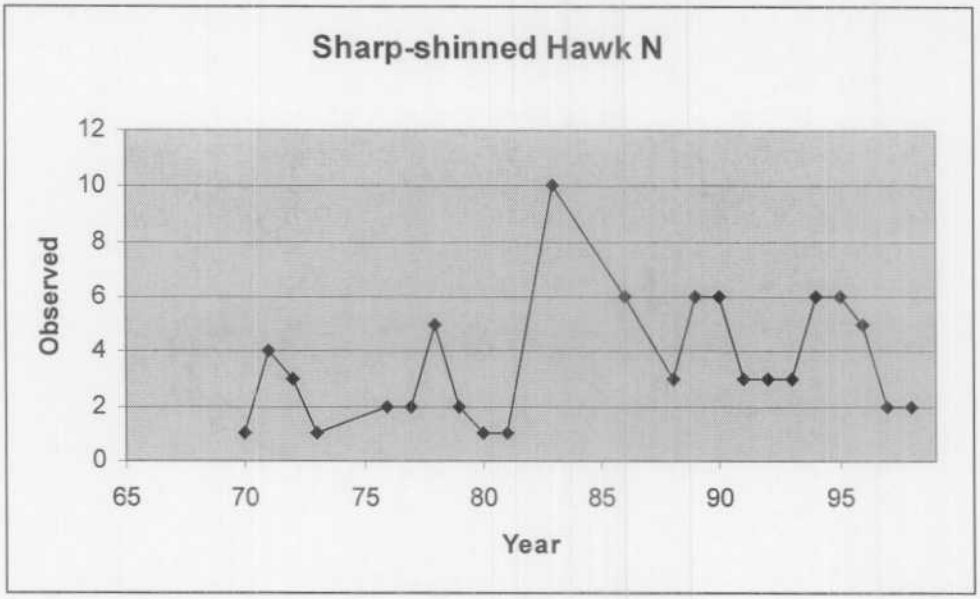
Mean 4 Standard Deviation 2



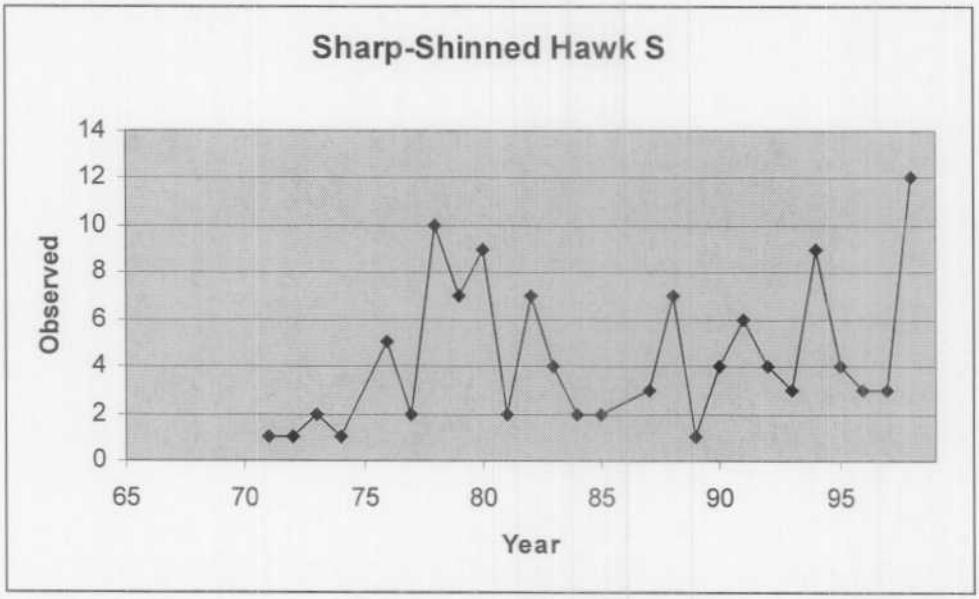
Mean 26 Standard Deviation 18



Average 26 Standard Deviation 19

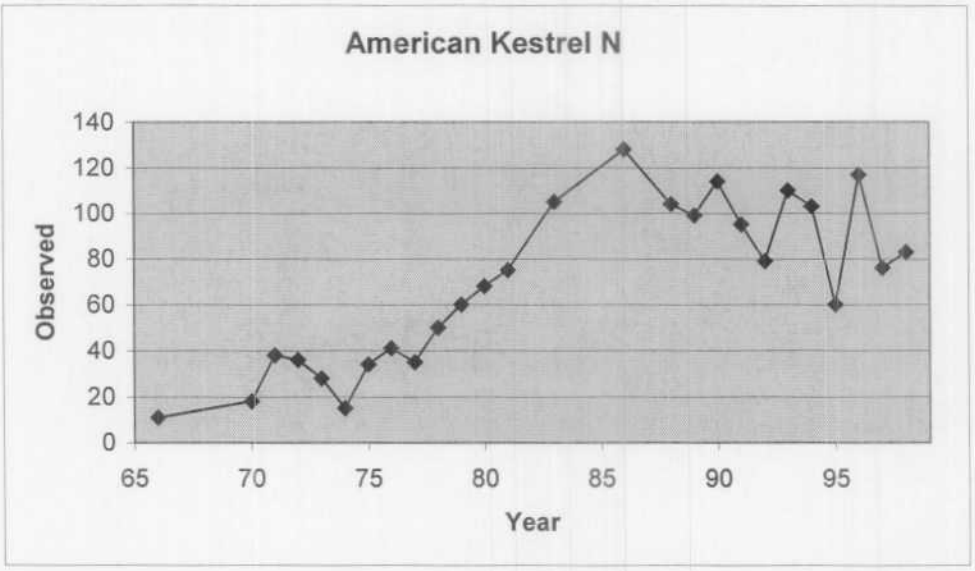


Average 3 Standard Deviation 2

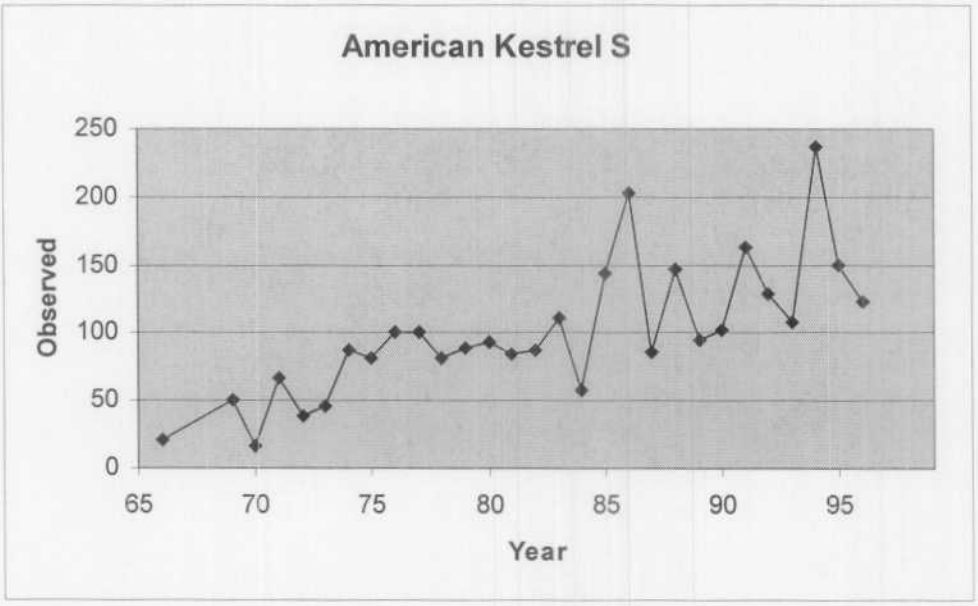


Average 4 Standard Deviation 3

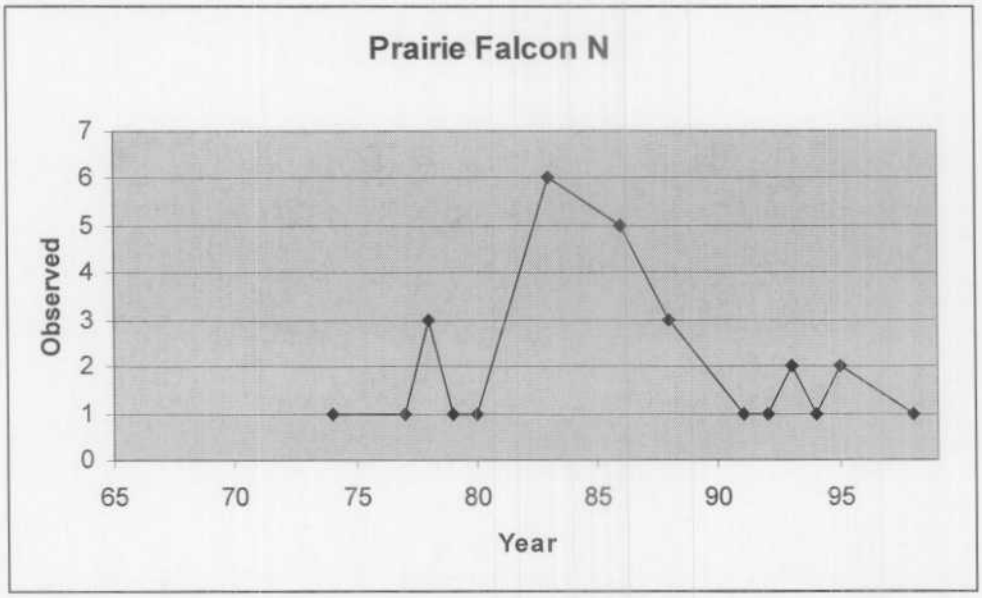
Falconidae



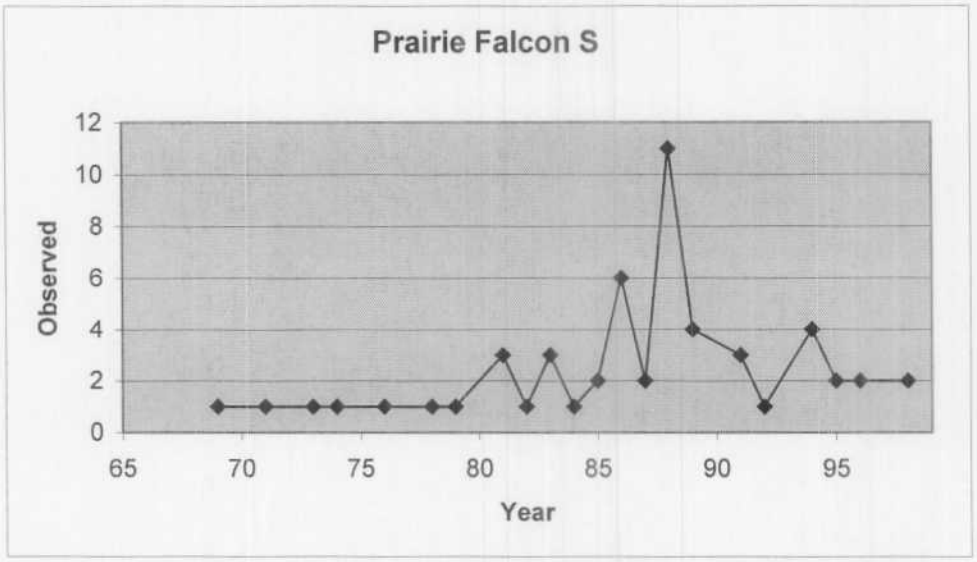
Mean 68 Standard Deviation 34



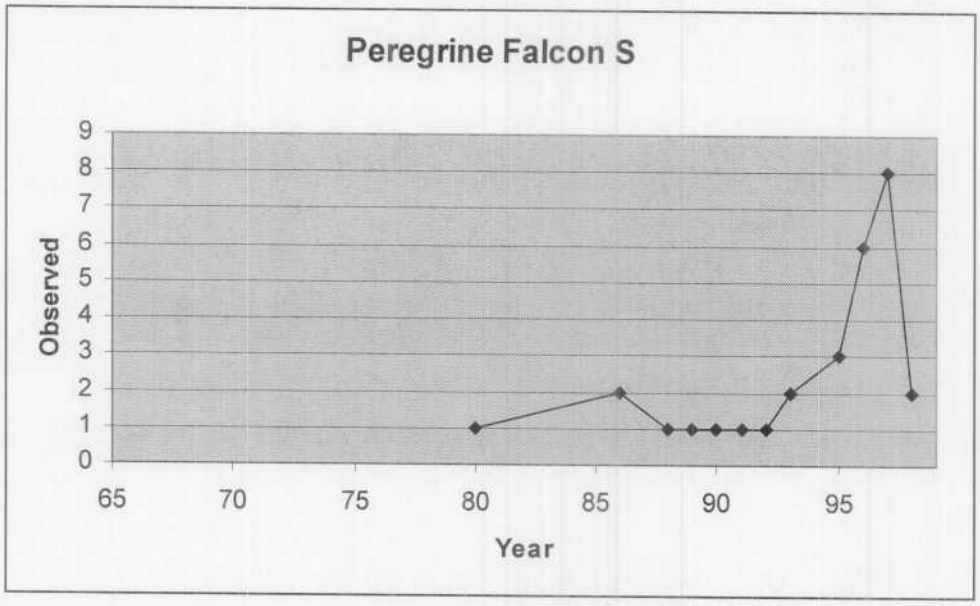
Mean 103 Standard Deviation 49



Mean 2 Standard Deviation 1



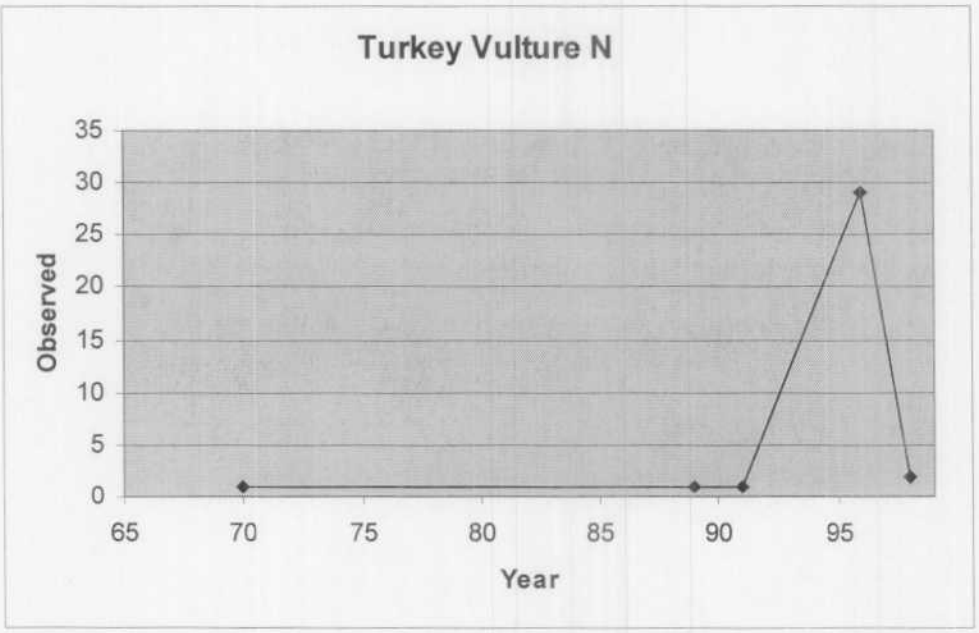
Mean 2 Standard Deviation 2



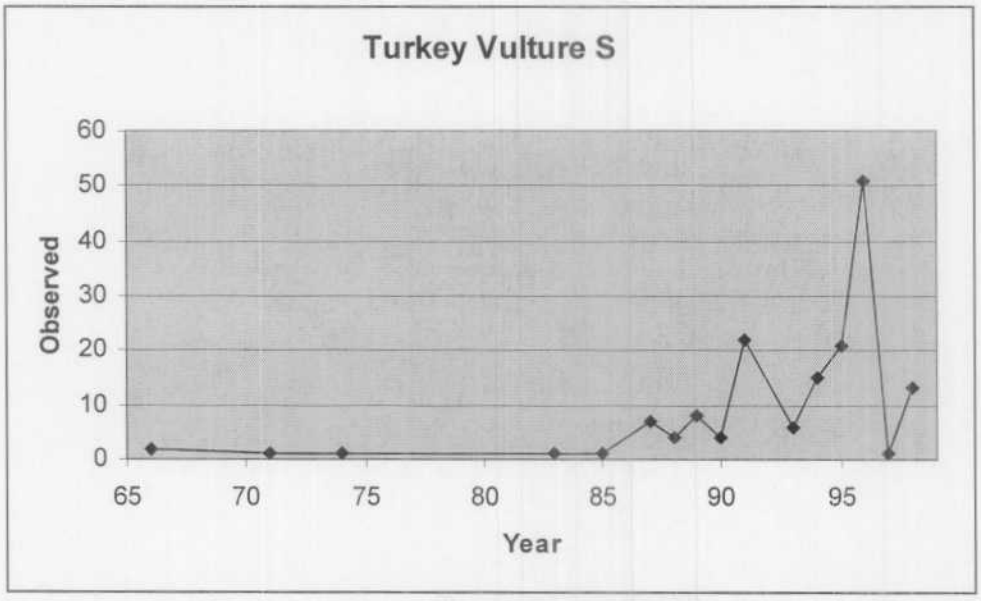
Mean 2

Standard Deviation 2

Cathartidae

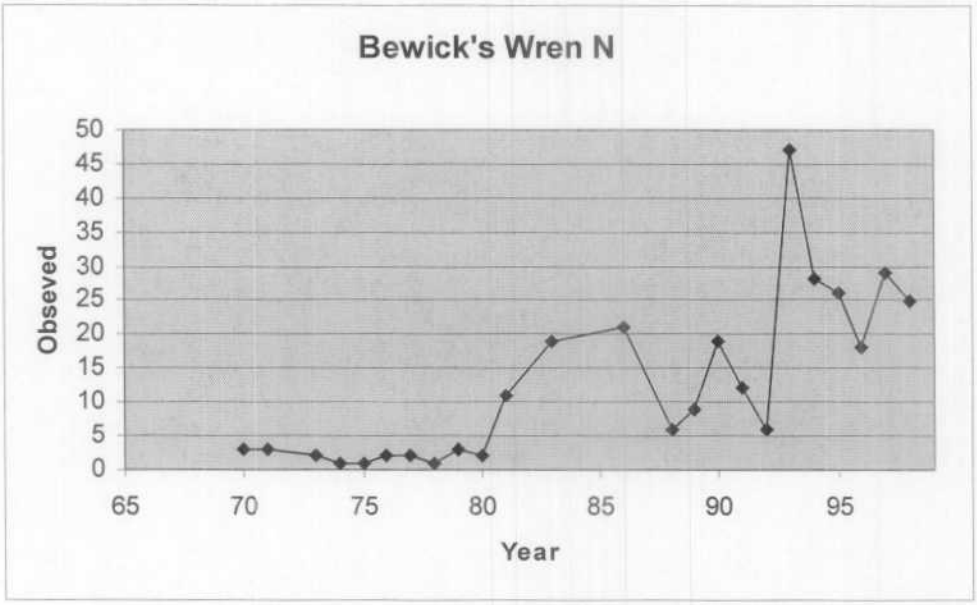


Mean 6 Standard Deviation 11

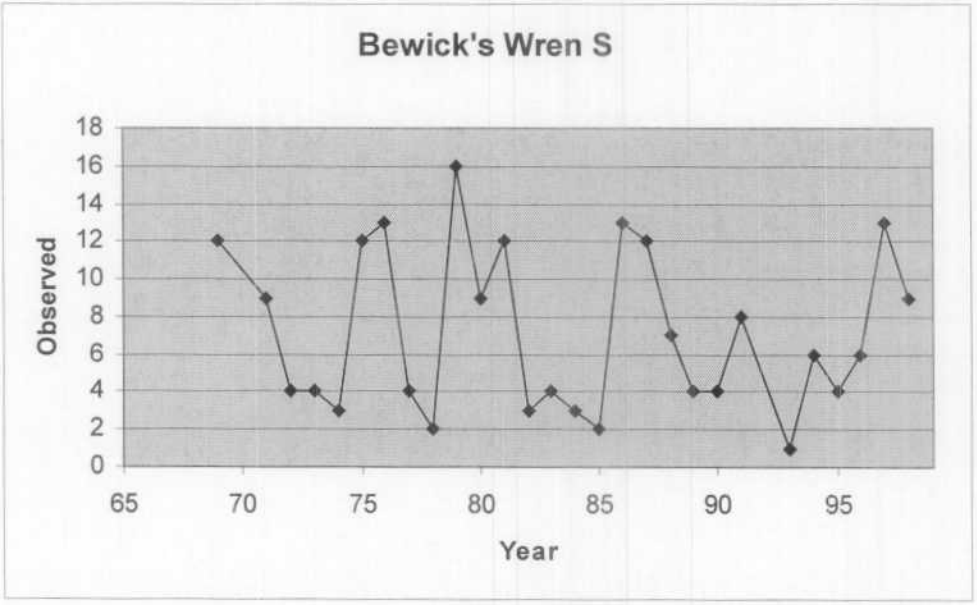


Mean 11 Standard Deviation 13

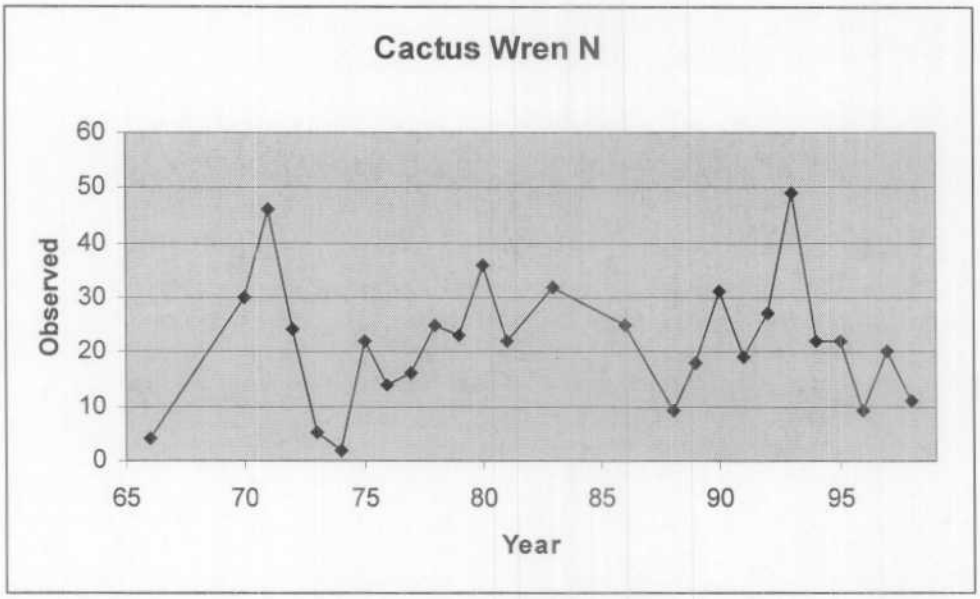
Troglodytidae



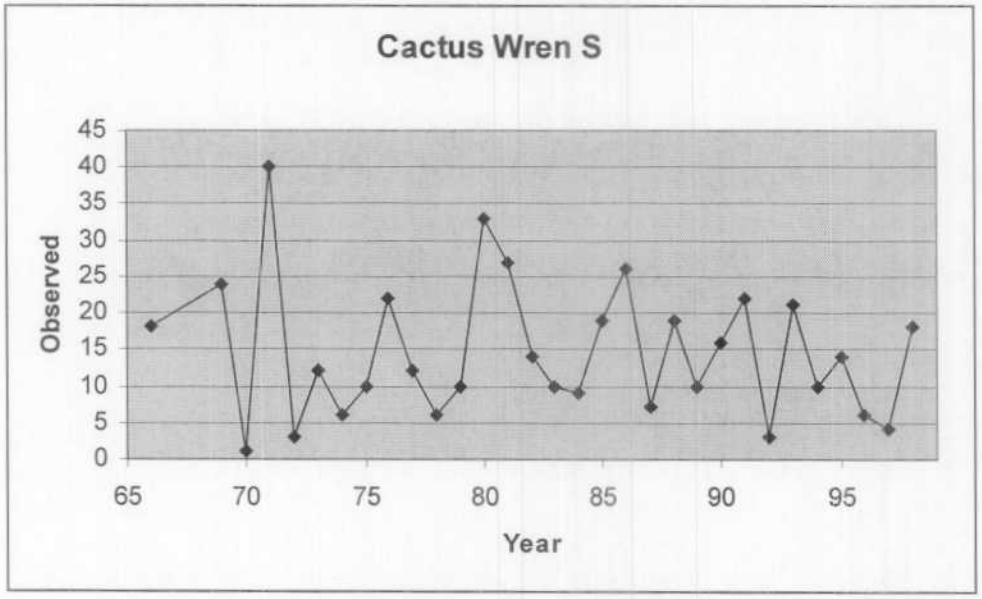
Mean 12 Standard Deviation 11



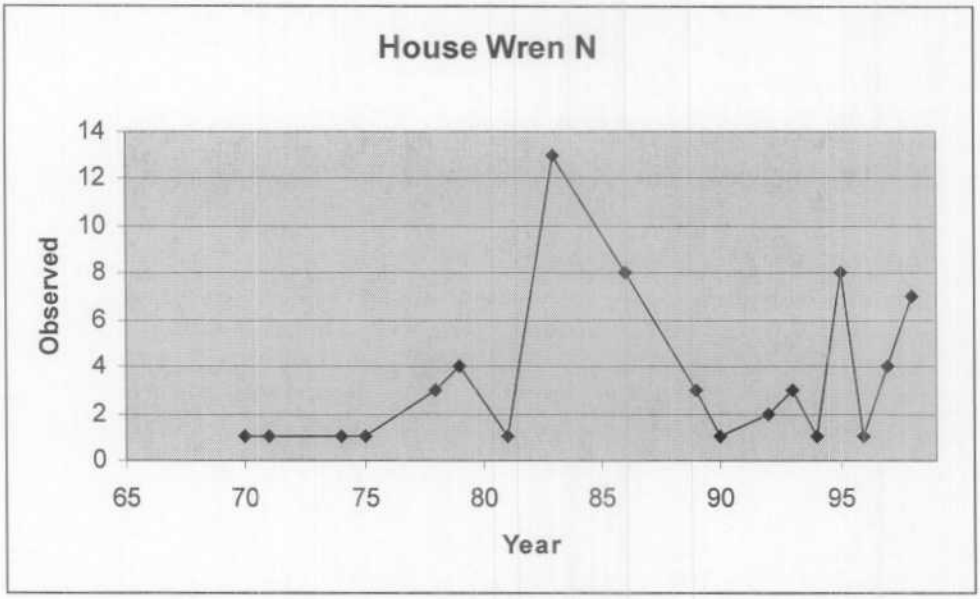
Mean 7 Standard Deviation 4



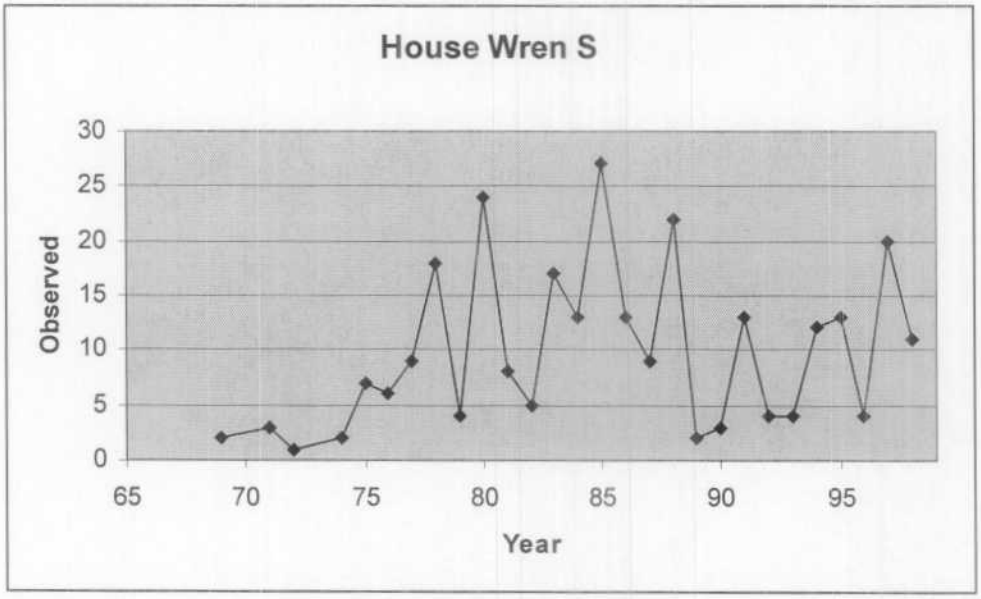
Mean 21 Standard Deviation 11



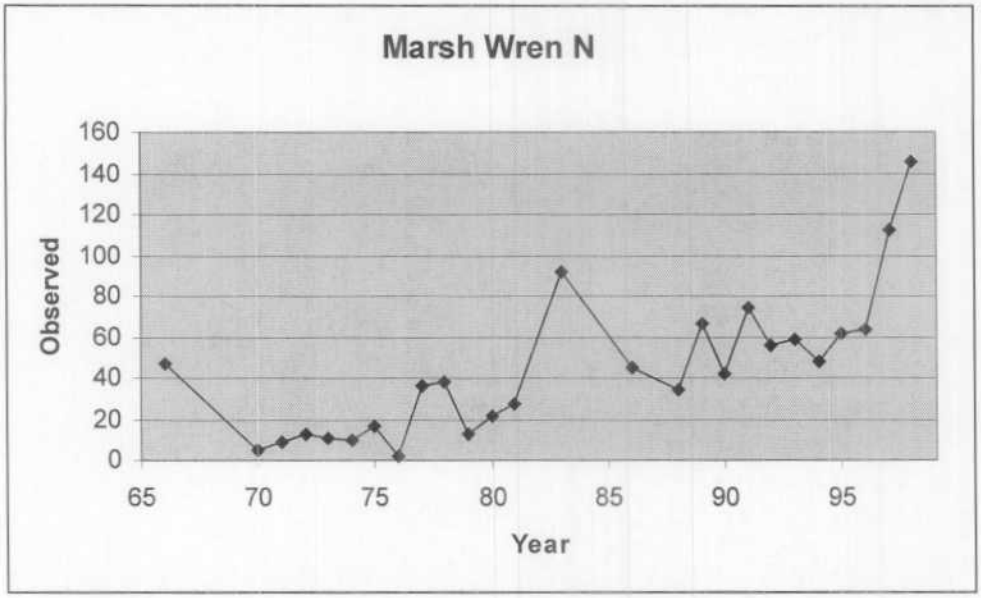
Mean 14 Standard Deviation 9



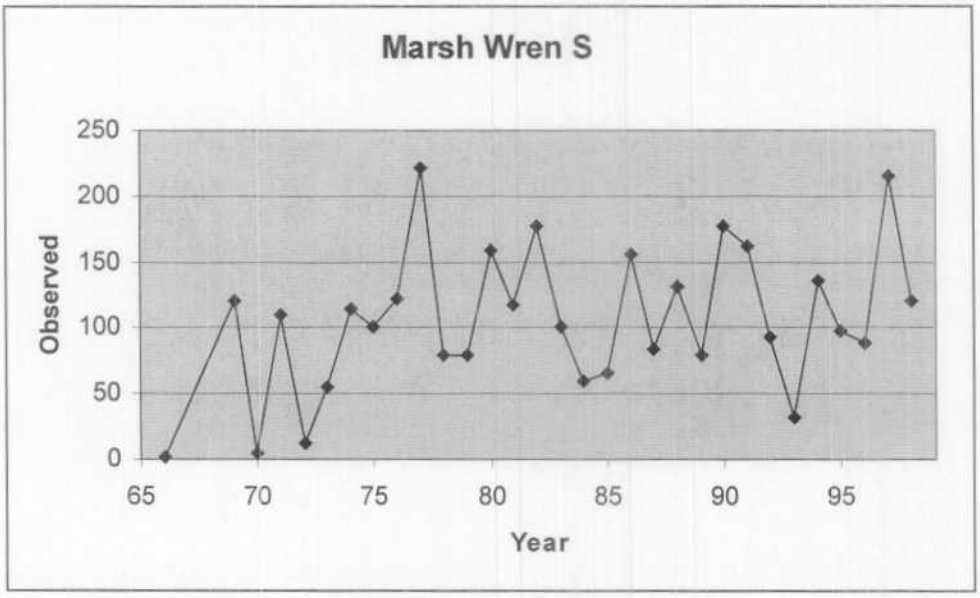
Mean 3 Standard Deviation 3



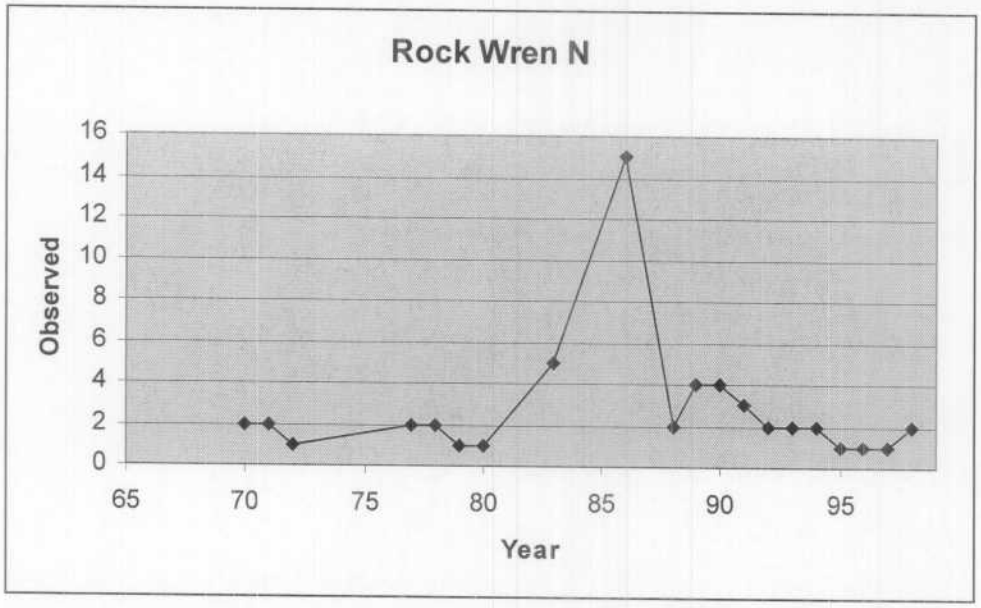
Mean 9 Standard Deviation 7



Mean 44 Standard Deviation 33



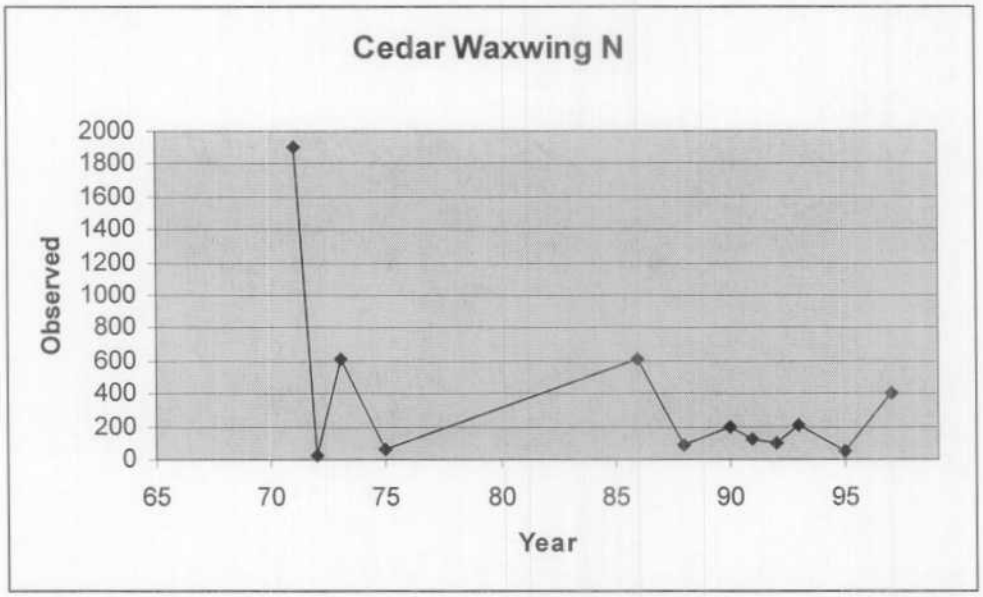
Mean 105 Standard Deviation 54



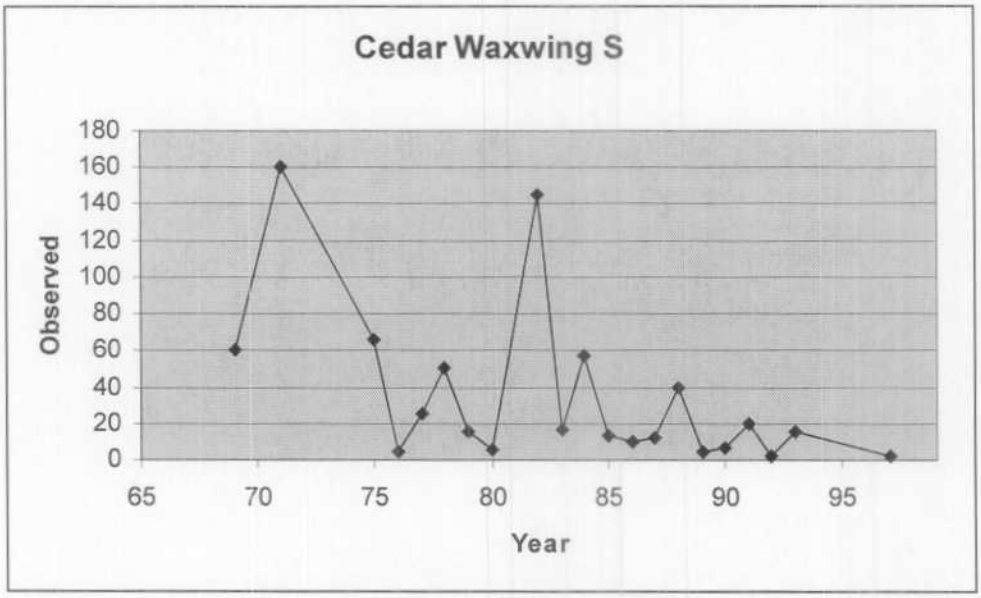
Mean 2

Standard Deviation 3

Bombycillidae

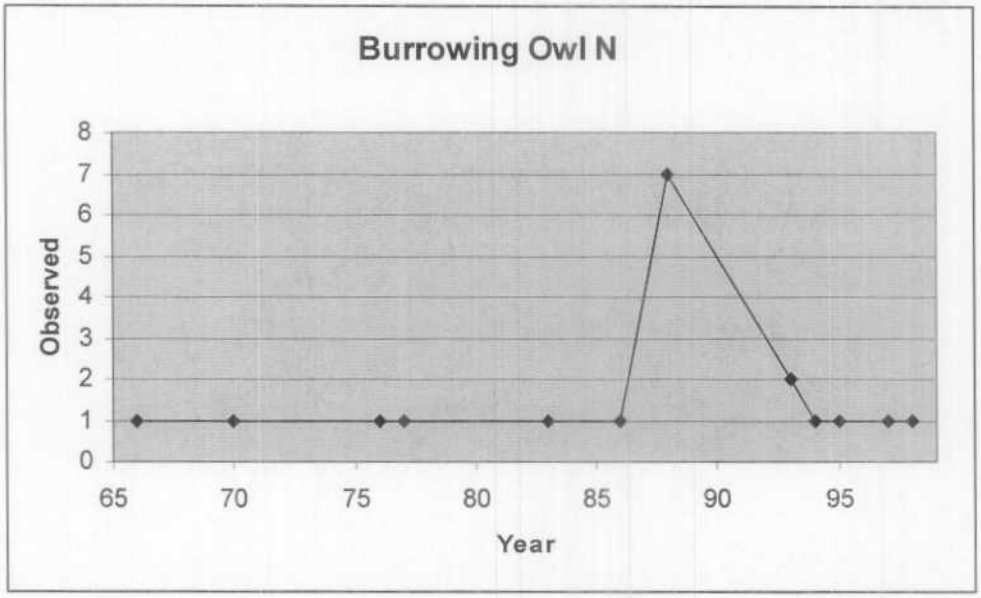


Mean 362 Standard Deviation 504

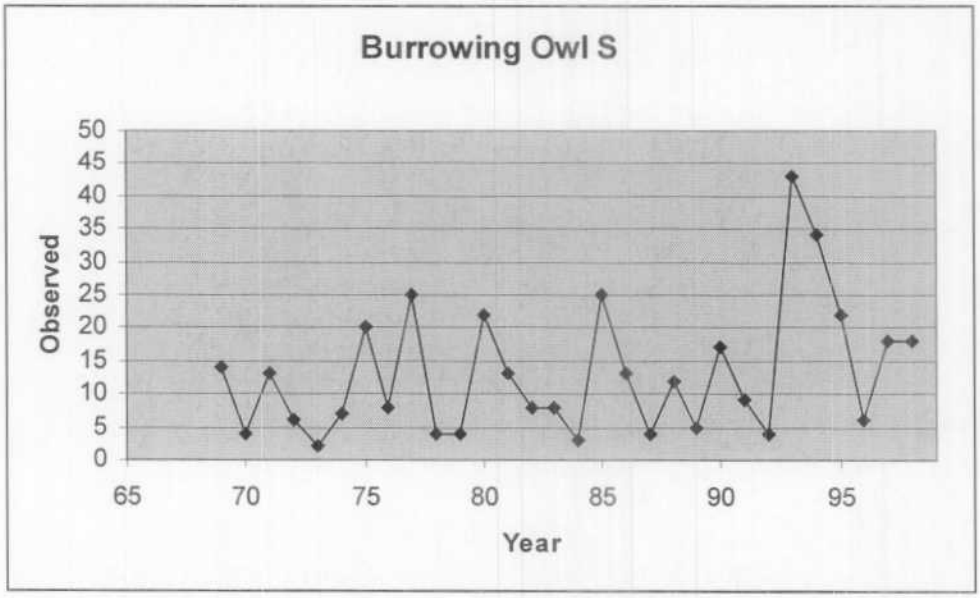


Mean 43 Standard Deviation 34

Stringidae

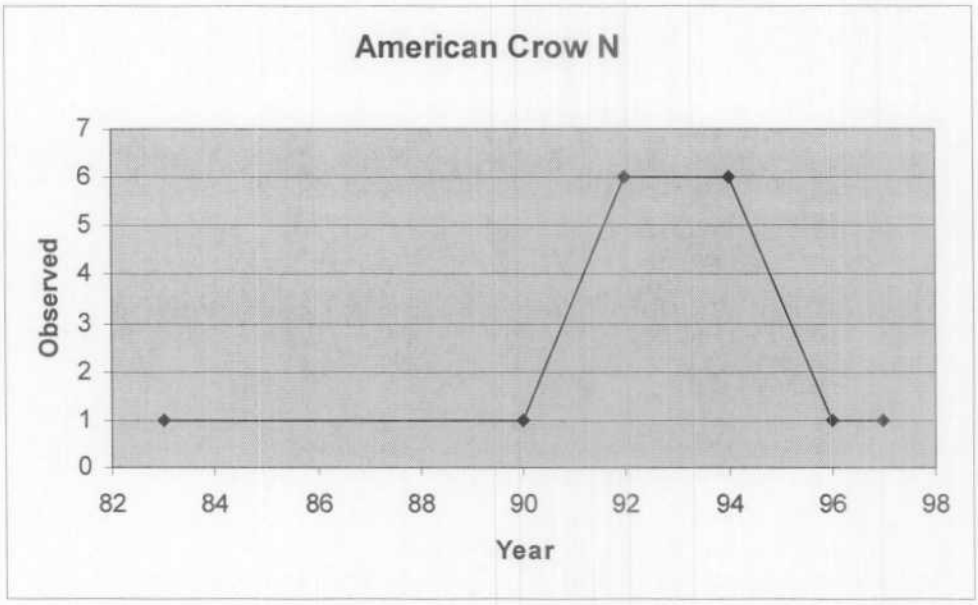


Mean 1 Standard Deviation 1

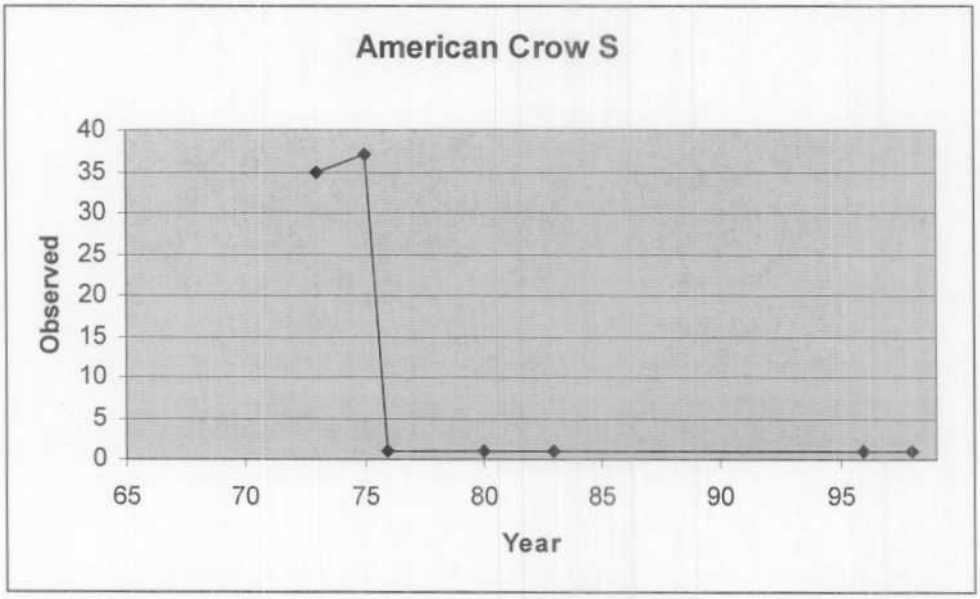


Mean 13 Standard Deviation 9

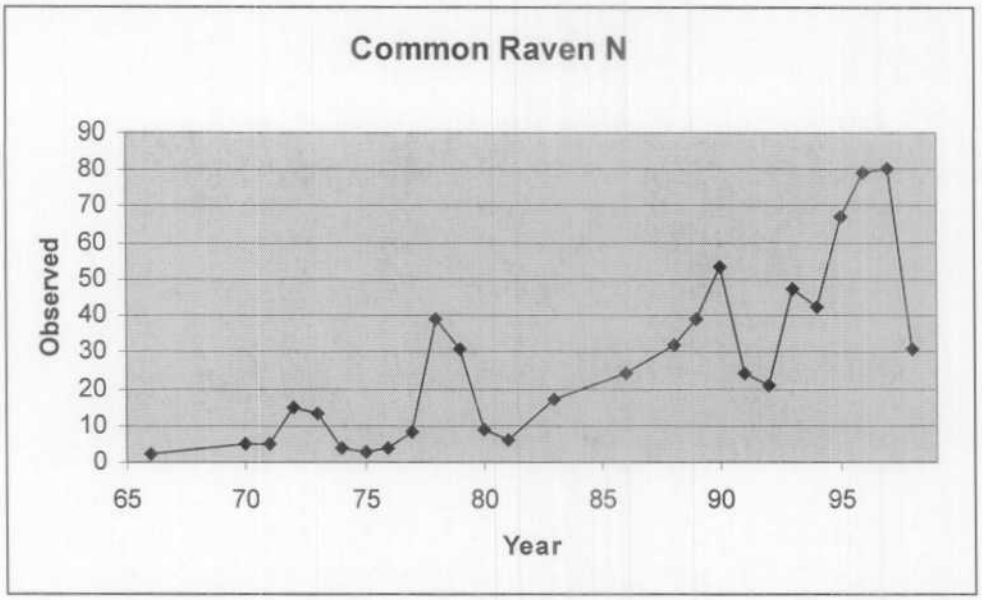
Corvidae



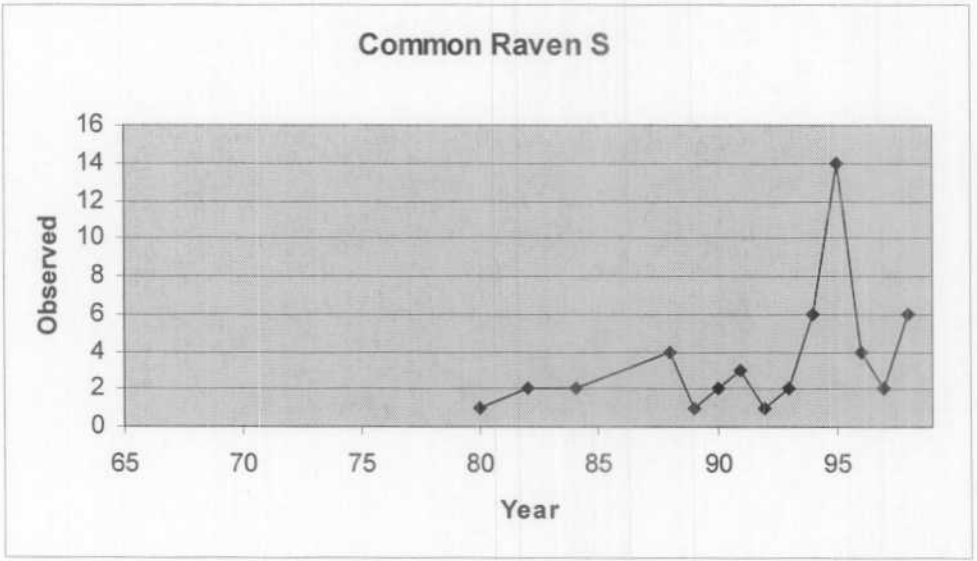
Mean 2 Standard Deviation 2



Mean 6 Standard Deviation 11

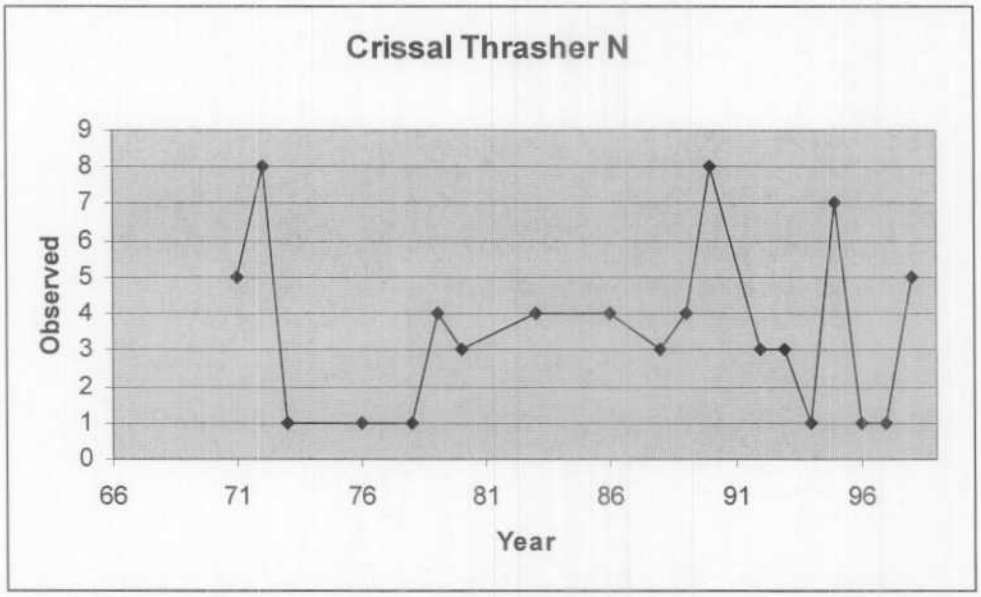


Mean 26 Standard Deviation 22

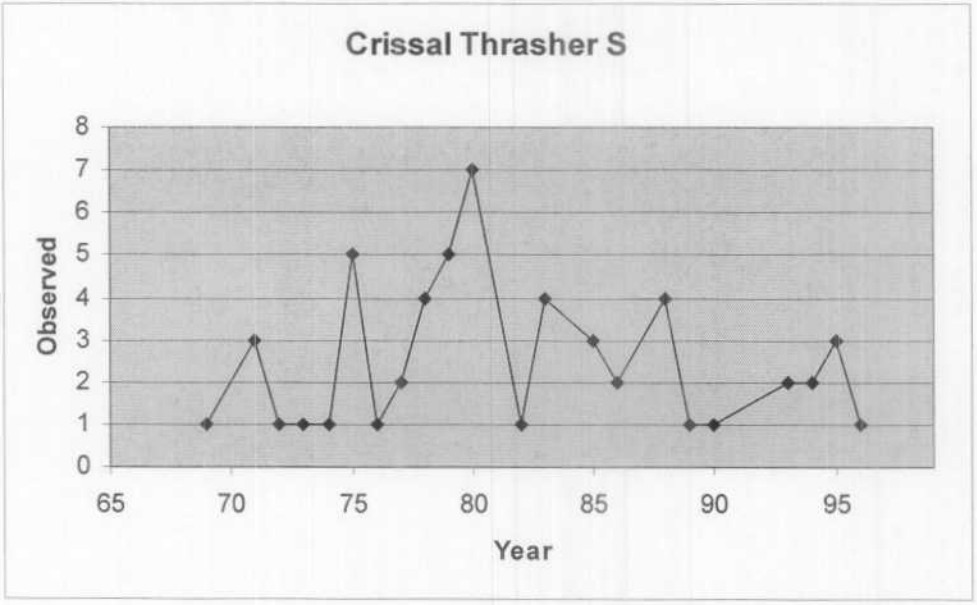


Mean 3 Standard Deviation 3

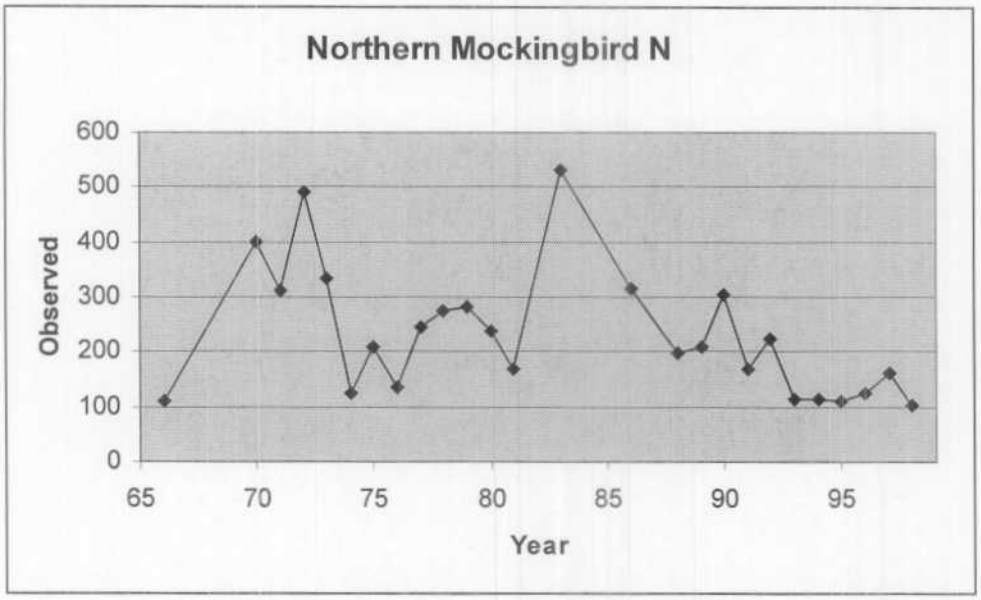
Mimidae



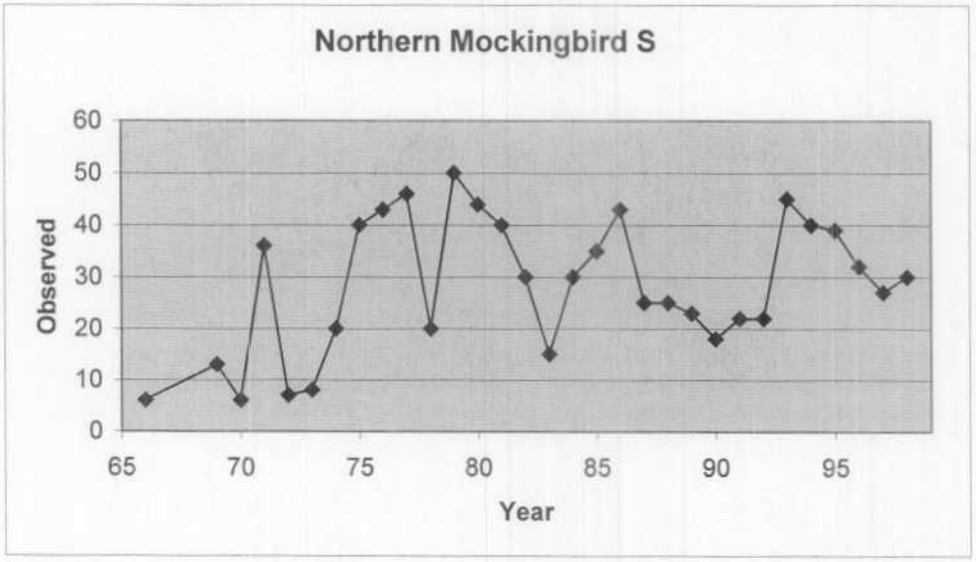
Mean 3 Standard Deviation 2



Mean 2 Standard Deviation 1

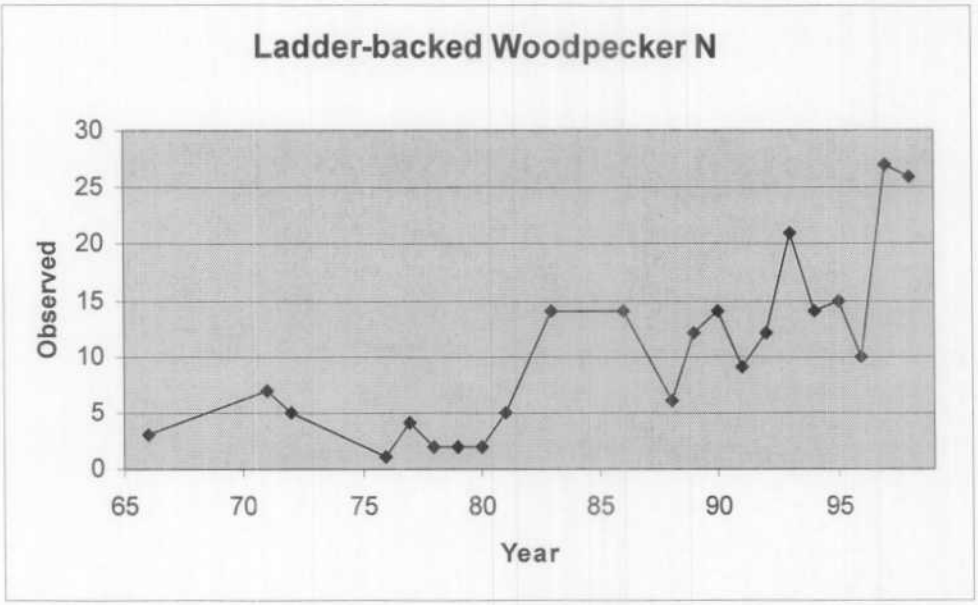


Mean 229 Standard Deviation 114

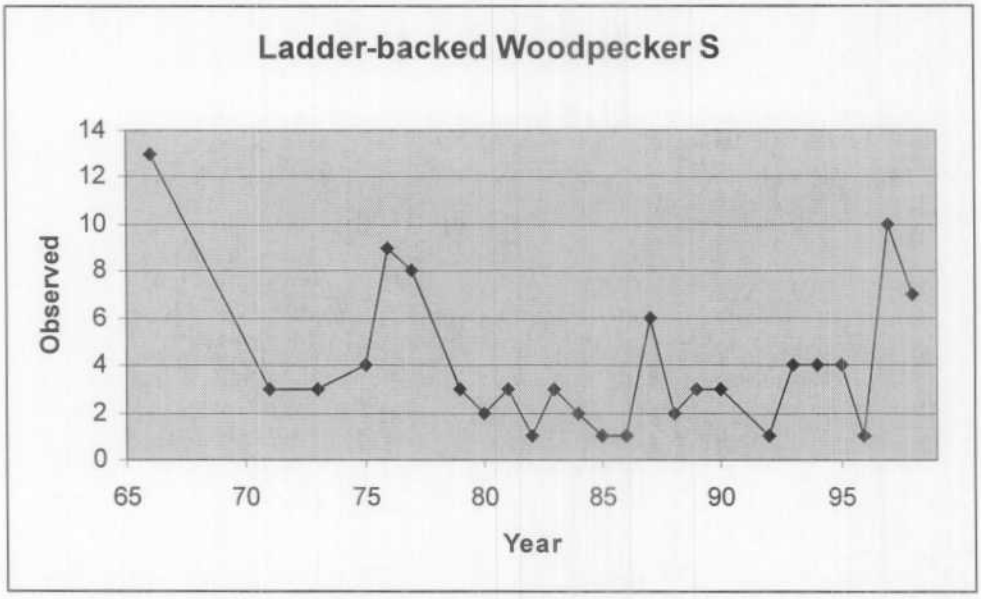


Mean 28 Standard Deviation 12

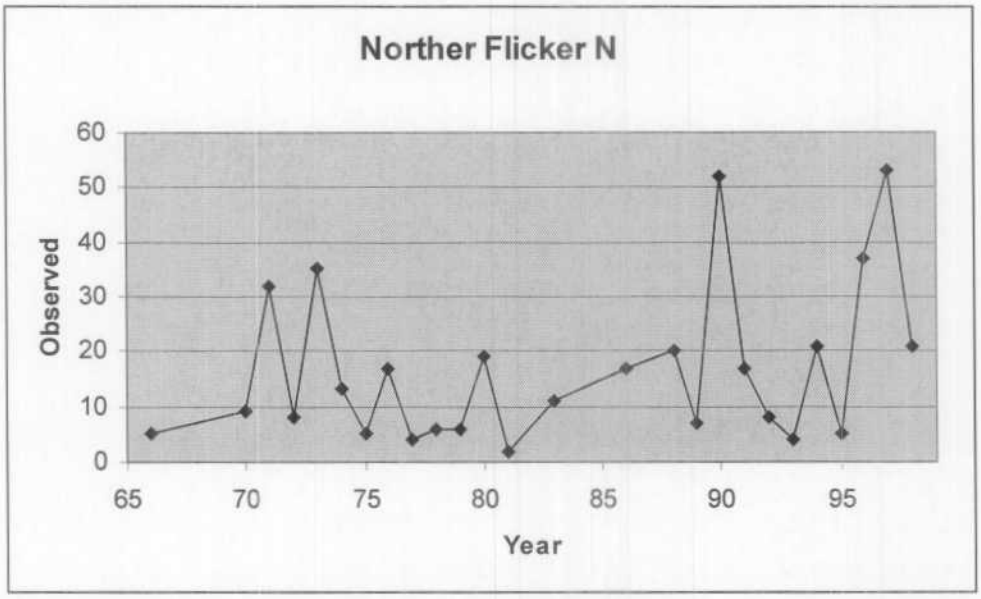
Picidae



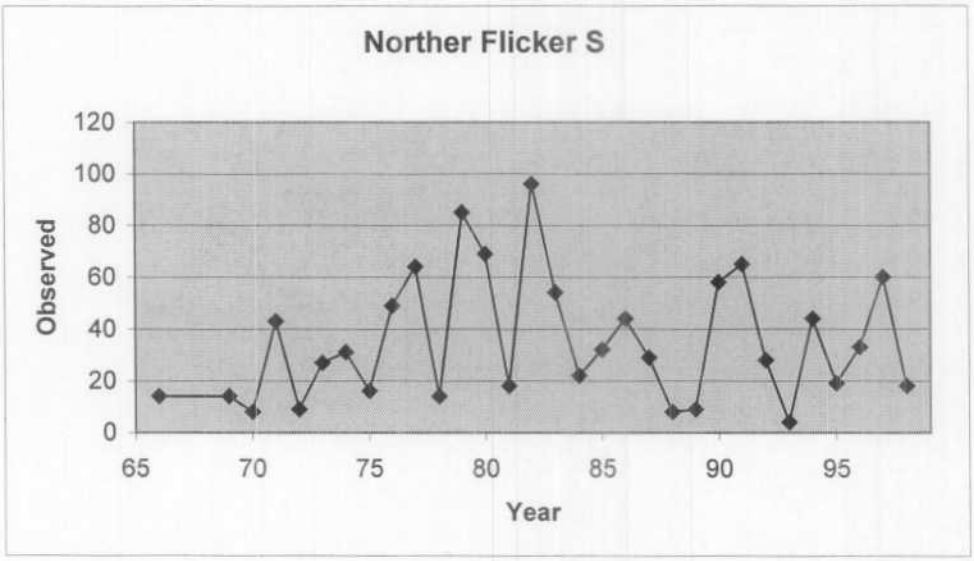
Mean 10 Standard Deviation 7



Mean 4 Standard Deviation 3

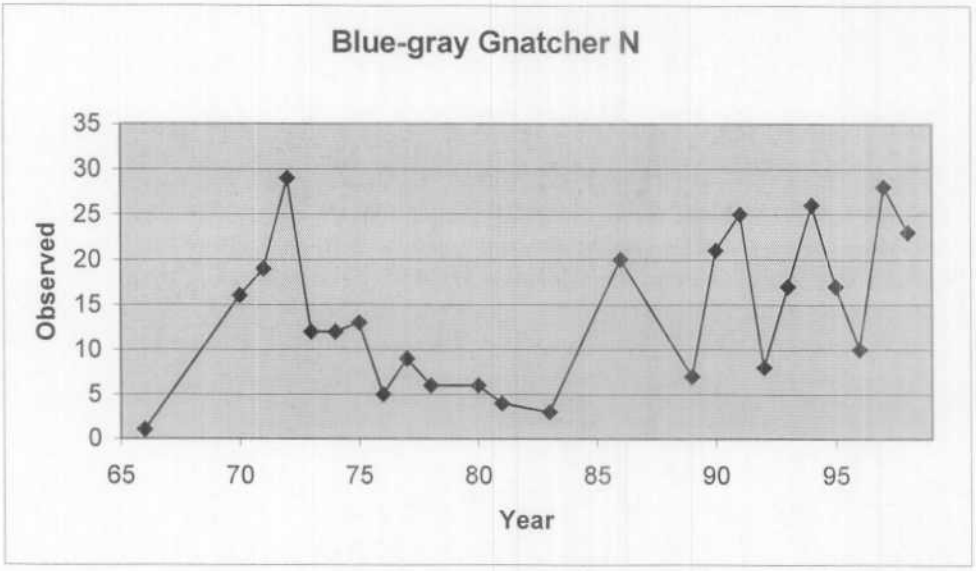


Mean 16 Standard Deviation 14

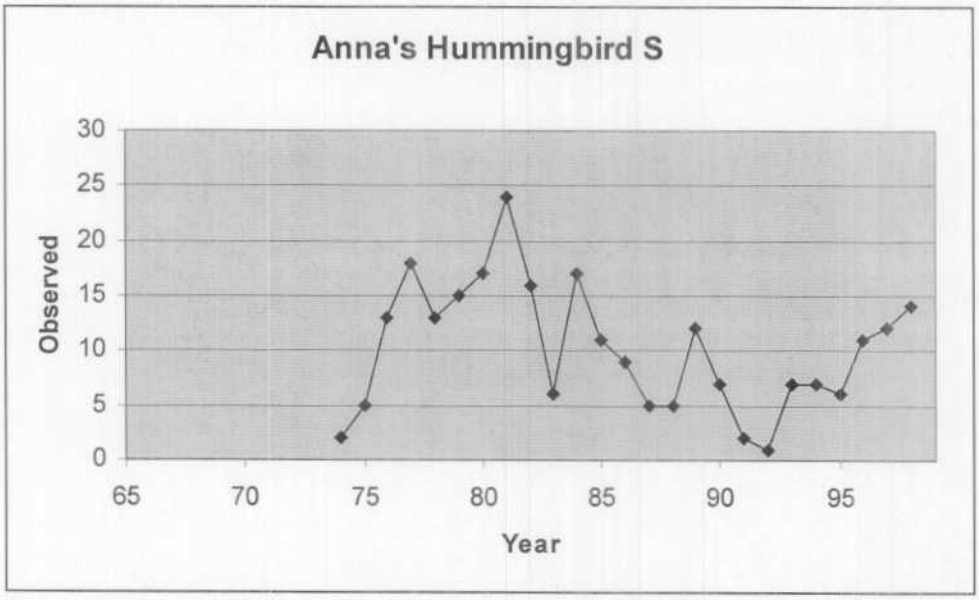


Mean 34 Standard Deviation 23

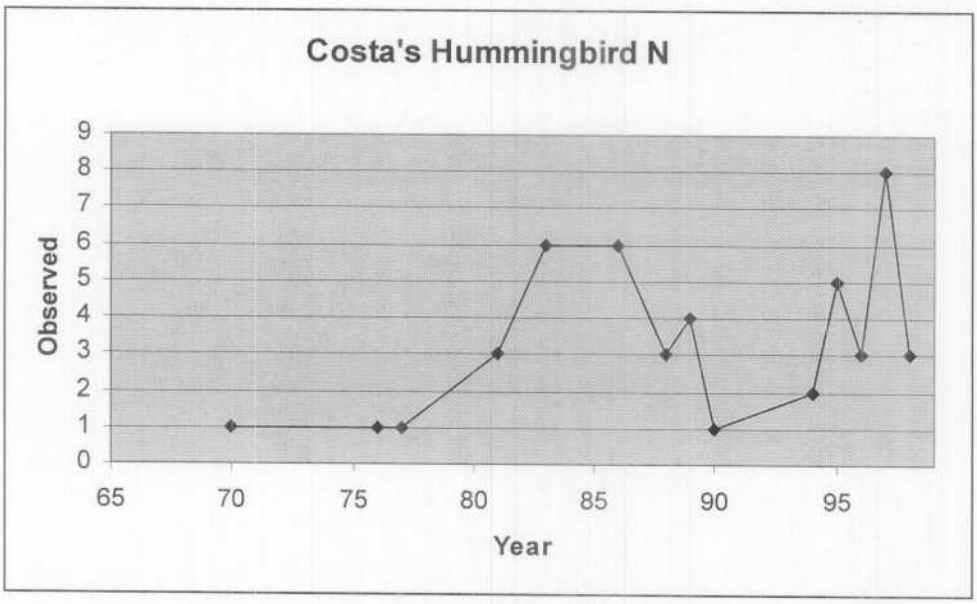
Trochilidae



Mean 7 Standard Deviation 7



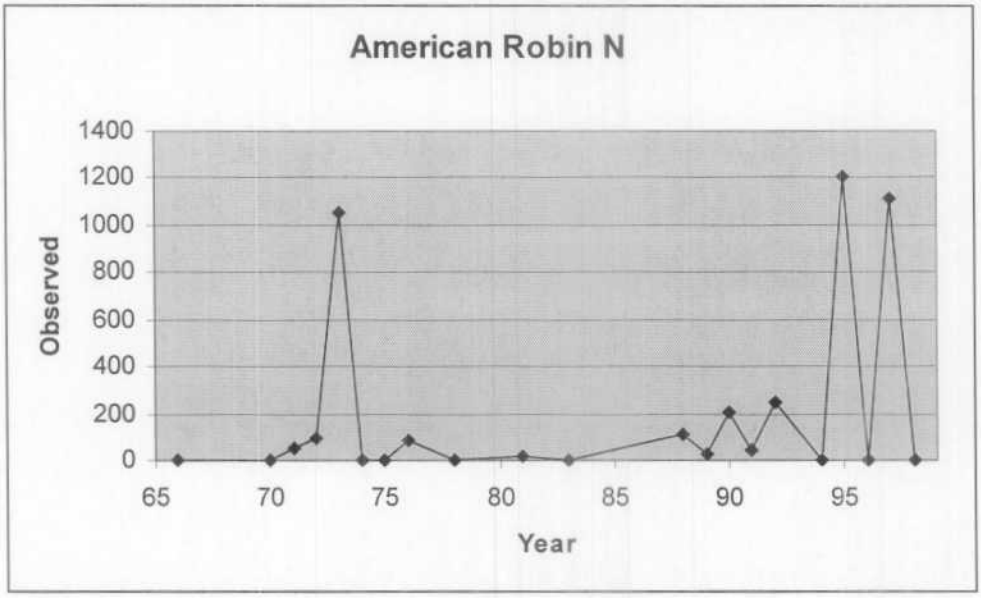
Mean 10 Standard Deviation 5



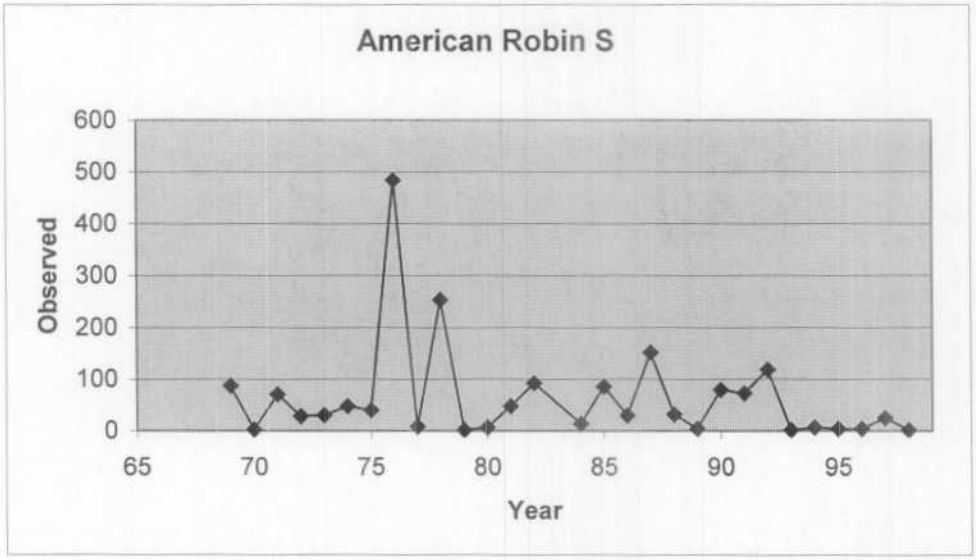
Mean 3

Standard Deviation 2

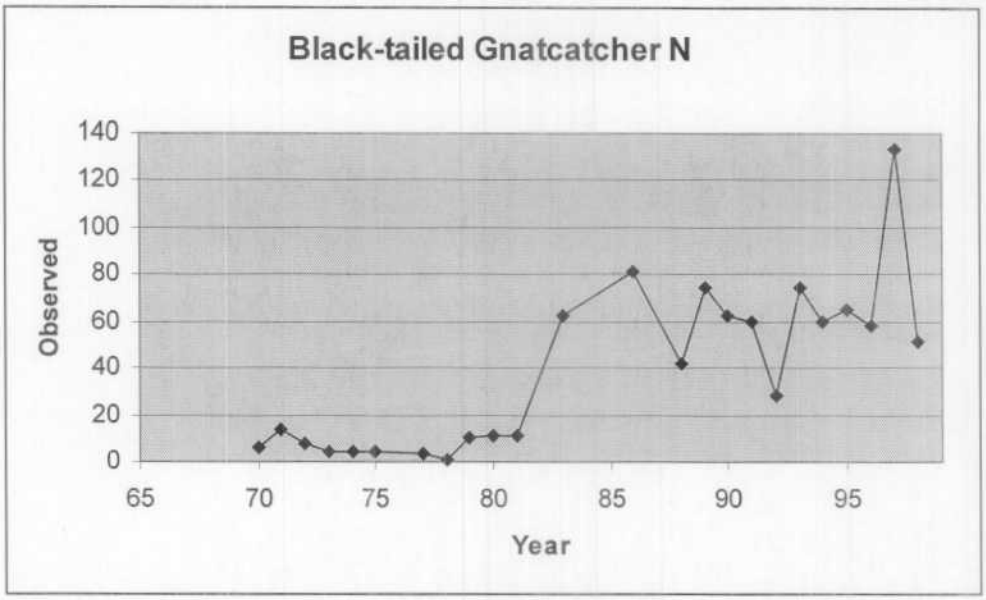
Turdidae



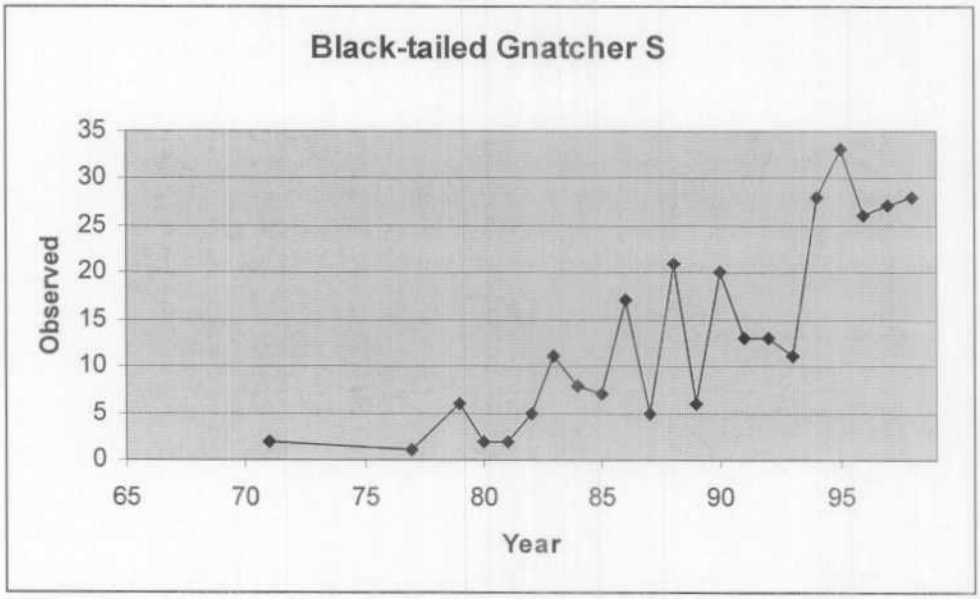
Mean 203 Standard Deviation 381



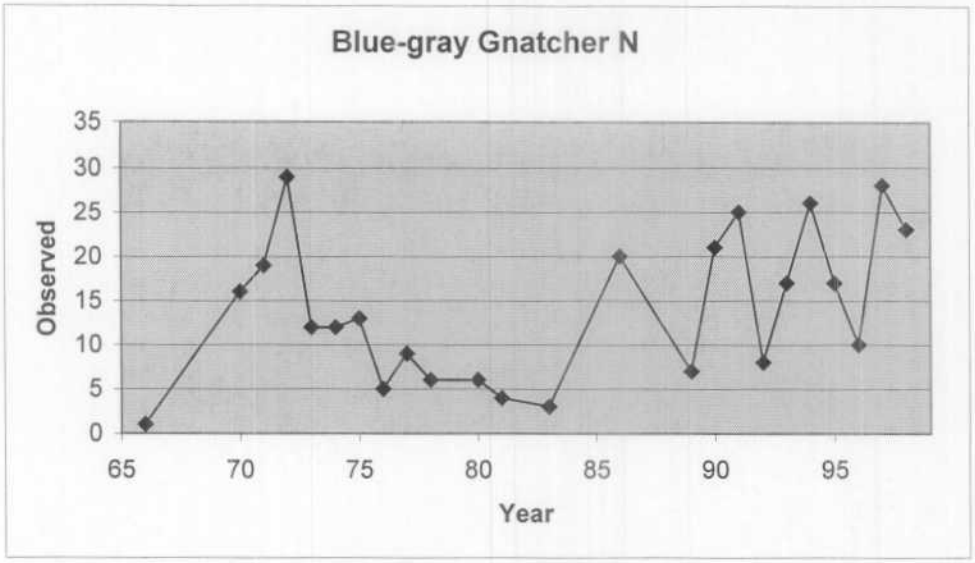
Mean 62 Standard Deviation 96



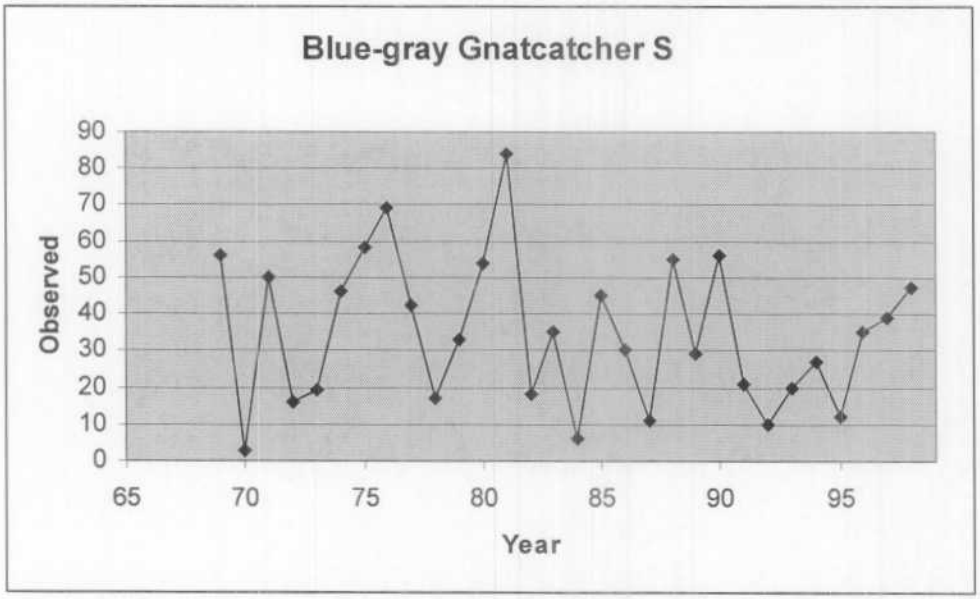
Mean 38 Standard Deviation 34



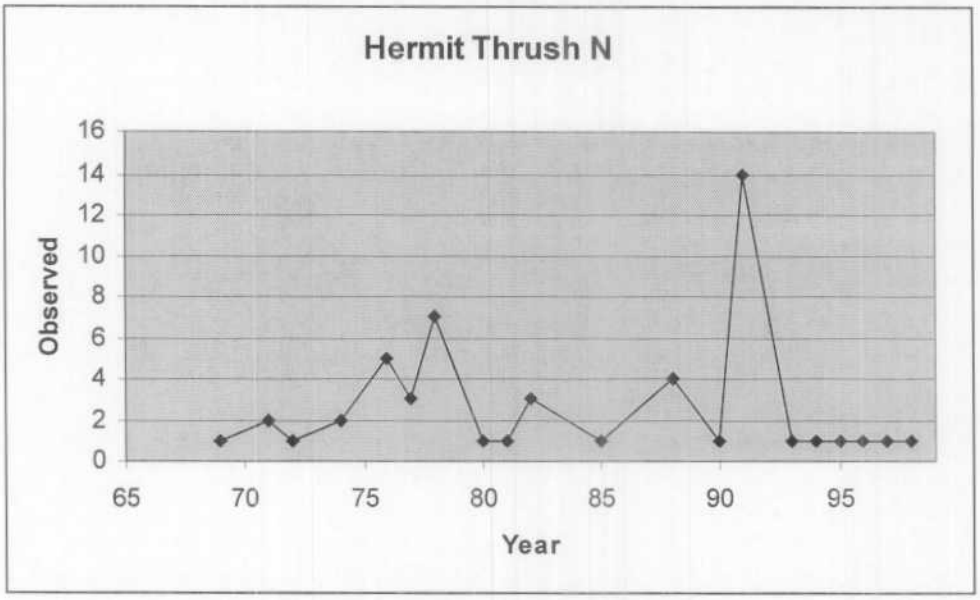
Mean 13 Standard Deviation 9



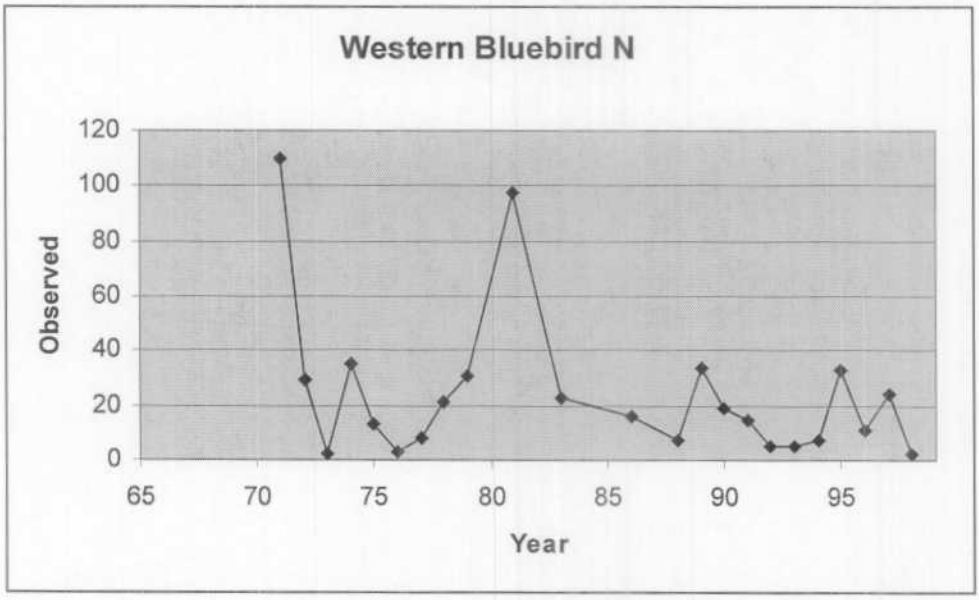
Mean 14 Standard Deviation 8



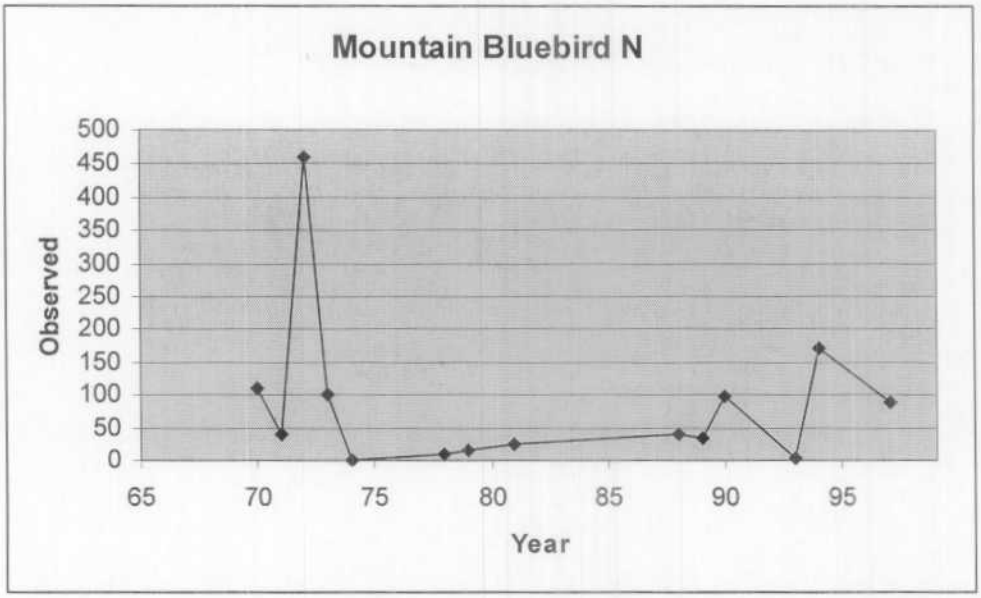
Mean 34 Standard Deviation 19



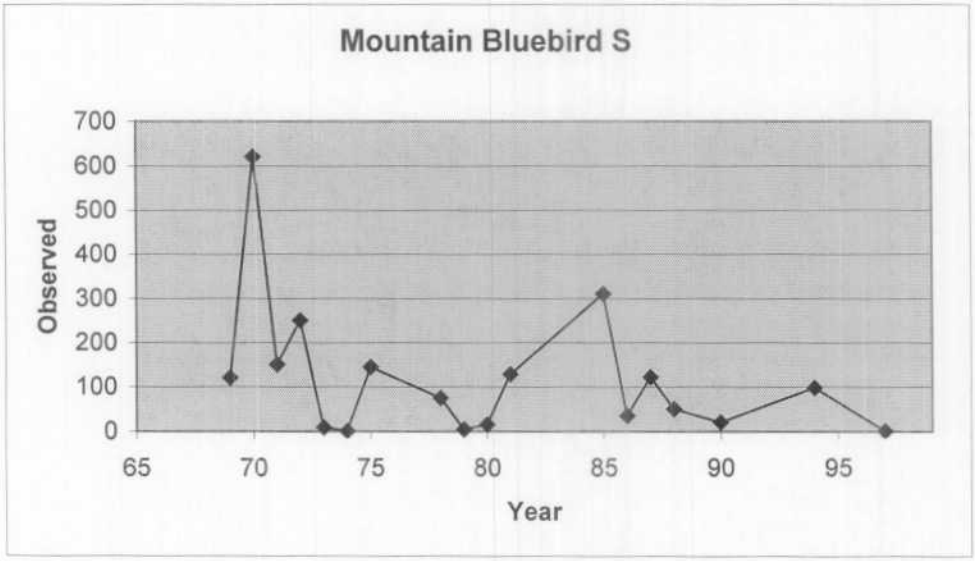
Mean 2 Standard Deviation 3



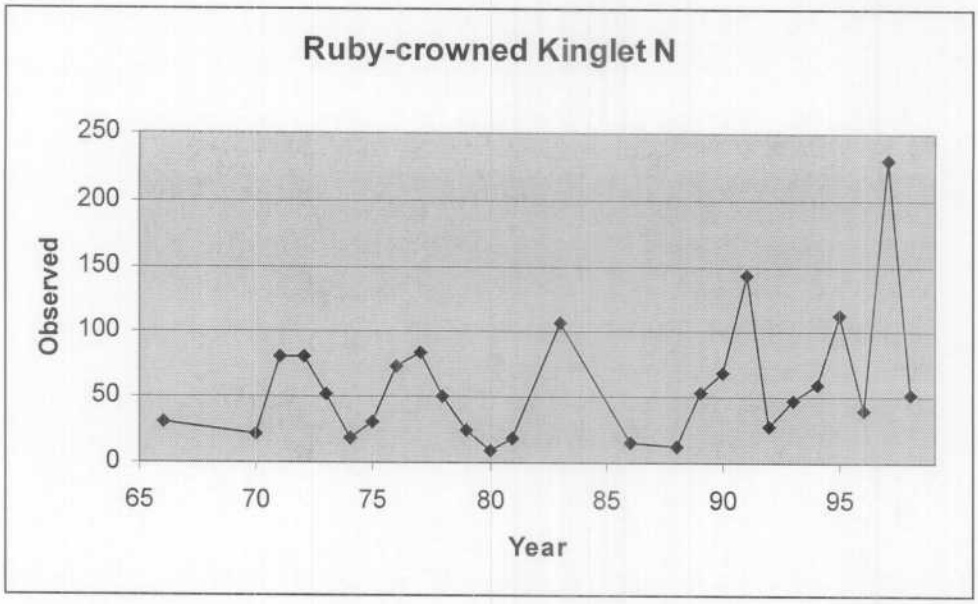
Mean 23 Standard Deviation 26



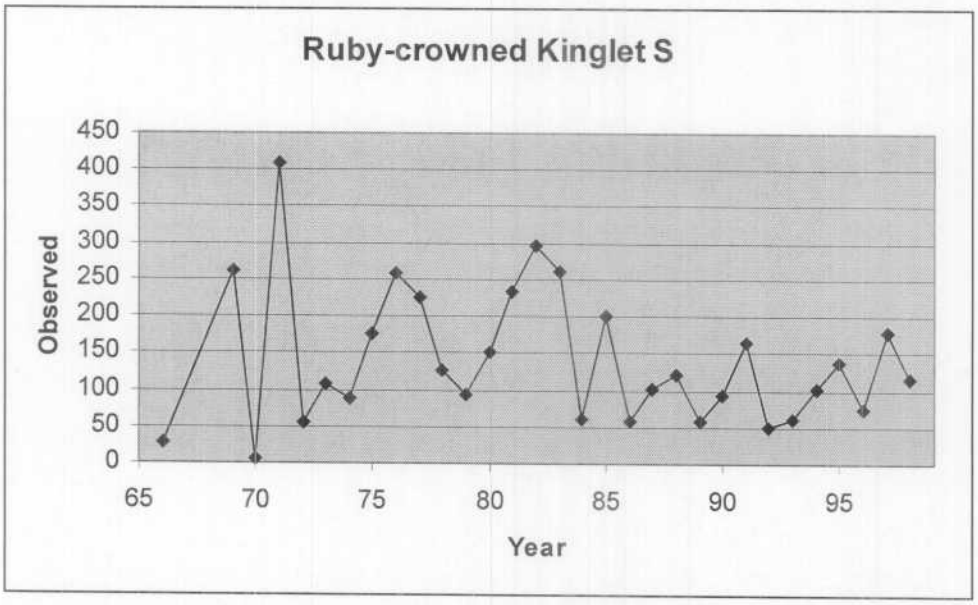
Mean 85 Standard Deviation 114



Mean 119 Standard Deviation 148



Mean 59 Standard Deviation 47



Mean 139 Standard Deviation 90