**Stock: Megrim *L. whiffiagonis* in Divisions VIIb-k and VIIIa,b**

**Assessment Quality Control Diagram 1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Average F( 3-6 ,u) | | | | | | | | | | | | | | | |
| Year | | | | | | | | | | | | | | | |
| Date of assessment | | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| 1989 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1990 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1991 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | | 0.22 | 0.22 | 0.34 | 0.22 |  |  |  |  |  |  |  |  |  |  |
| 1994 | | 0.28 | 0.33 | 0.48 | 0.34 | 0.26 |  |  |  |  |  |  |  |  |  |
| 1995 | | 0.28 | 0.33 | 0.47 | 0.34 | 0.29 | 0.21 |  |  |  |  |  |  |  |  |
| 1996 | | 0.29 | 0.33 | 0.47 | 0.35 | 0.36 | 0.28 | 0.25 |  |  |  |  |  |  |  |
| 1997 | | 0.29 | 0.33 | 0.47 | 0.35 | 0.35 | 0.29 | 0.31 | 0.28 |  |  |  |  |  |  |
| 1998 | | 0.28 | 0.34 | 0.46 | 0.36 | 0.35 | 0.30 | 0.34 | 0.32 | 0.30 |  |  |  |  |  |
| 1999 | | 0.29 | 0.34 | 0.47 | 0.36 | 0.36 | 0.30 | 0.34 | 0.32 | 0.30 | 0.35 |  |  |  |  |
| 2000 | | 0.28 | 0.34 | 0.46 | 0.36 | 0.36 | 0.32 | 0.36 | 0.35 | 0.32 | 0.37 | 0.43 |  |  |  |
| 2001 | | 0.29 | 0.34 | 0.47 | 0.35 | 0.34 | 0.29 | 0.31 | 0.29 | 0.26 | 0.29 | 0.31 | 0.39 |  |  |
| 2002 | | 0.28 | 0.34 | 0.47 | 0.35 | 0.34 | 0.29 | 0.32 | 0.29 | 0.25 | 0.28 | 0.29 | 0.37 | 0.39 |  |
| 2003 | | 0.29 | 0.35 | 0.47 | 0.36 | 0.35 | 0.29 | 0.32 | 0.30 | 0.26 | 0.29 | 0.29 | 0.33 | 0.29 | 0.39 |

assessment was not approved

**Remarks:**

**Stock: Megrim *L. whiffiagonis* in Divisions VIIb-k and VIIIa,b**

**Assessment Quality Control Diagram 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Recruitment (age ) Unit: millions | | | | | | | | | | | | | | |
| Year class | | | | | | | | | | | | | | |
| Date of assessment | | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| 1989 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1990 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1991 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | | 773 | 420 | 310 | 310 |  |  |  |  |  |  |  |  |  |  |
| 1994 | | 360 | 489 | 293 | 260 | 260 |  |  |  |  |  |  |  |  |  |
| 1995 | | 346 | 369 | 269 | 285 | 250 | 250 |  |  |  |  |  |  |  |  |
| 1996 | | 311 | 364 | 335 | 269 | 434 | 267 | 267 |  |  |  |  |  |  |  |
| 1997 | | 309 | 336 | 284 | 166 | 208 | 197 | 242 | 242 |  |  |  |  |  |  |
| 1998 | | 296 | 301 | 253 | 193 | 218 | 222 | 222 | 237 | 237 |  |  |  |  |  |
| 1999 | | 293 | 300 | 258 | 192 | 204 | 246 | 238 | 224 | 232 | 232 |  |  |  |  |
| 2000 | | 291 | 285 | 248 | 189 | 205 | 231 | 209 | 148 | 576 | 220 | 220 |  |  |  |
| 2001 | | 301 | 309 | 266 | 212 | 222 | 266 | 249 | 184 | 411 | 274 | 251 | 251 |  |  |
| 2002 | | 262 | 301 | 307 | 266 | 214 | 231 | 272 | 274 | 189 | 361 | 235 | 487 | 224 |  |
| 2003 | | 260 | 298 | 303 | 263 | 211 | 226 | 258 | 279 | 234 | 405 | 281 | 548 | 311 | 238 |

Forecast. *Status quo.*

assessment was not approved

**Remarks:** Data base revised in 1994, 1995 and 1998.

XSA SE .8; **1993**: taper 20, q plateau = 7, age <3 treated as recruit; **1994**: taper 10, q plateau = 8, none age treated as recruit; **1995**: taper 10, q plateau = 8, none age treated as recruit; **1996**: taper 10, q plateau = 8, none age treated as recruit; **1997**: taper 10, q plateau = 8, none age treated as recruit; **1998**: taper 10, q plateau = 8, none age treated as recruit; **1999**: taper 10, q plateau = 8, none age treated as recruit; **2000**: Taper(full range), q plateau = 8, age <3 treated as recruit; **2001**: Taper, q plateau = 8; none age treated as recruit; **2002**: Taper, q plateau = 8; none age treated as recruit **Stock: : Megrim *L. whiffiagonis* in Divisions VIIb-k and VIIIa,b**

**Assessment Quality Control Diagram 3**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Spawning stock biomass ('000 t) | | | | | | | | | | | | | | | | | |
| Year | | | | | | | | | | | | | | | | | |
| Date of assessment | 1989 | | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| 1989 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1990 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1991 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992 |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | 93 | | 89 | 94 | 103 | 115 | 121 | 123 |  |  |  |  |  |  |  |  |  |  |
| 1994 | 69 | | 66 | 67 | 78 | 85 | 91 | 97 | 99 |  |  |  |  |  |  |  |  |  |
| 1995 | 67 | | 63 | 64 | 73 | 76 | 81 | 91 | 97 | 101 |  |  |  |  |  |  |  |  |
| 1996 | 69 | | 63 | 62 | 68 | 71 | 76 | 90 | 97 | 104 | 105 |  |  |  |  |  |  |  |
| 1997 | 70 | | 64 | 63 | 68 | 70 | 70 | 75 | 69 | 71 | 72 | 73 |  |  |  |  |  |  |
| 1998 | 65 | | 55 | 56 | 58 | 60 | 61 | 66 | 62 | 64 | 65 | 65 | 65 |  |  |  |  |  |
| 1999 | 66 | | 55 | 56 | 57 | 60 | 60 | 66 | 61 | 65 | 62 | 62 | 62 | 62 |  |  |  |  |
| 2000 | 64 | | 55 | 56 | 58 | 60 | 59 | 64 | 58 | 60 | 57 | 49 | 62 | 62 | 62 |  |  |  |
| 2001 | 62 | | 54 | 55 | 58 | 61 | 62 | 69 | 67 | 73 | 73 | 63 | 117 | 67 | 81 | 59 |  |  |
| 2002 | 63 | | 54 | 55 | 59 | 61 | 62 | 70 | 67 | 74 | 75 | 65 | 61 | 66 | 68 | 71 | 70 |  |
| 2003 | 62 | | 53 | 54 | 58 | 60 | 61 | 68 | 65 | 72 | 72 | 64 | 62 | 72 | 74 | 82 | 80 | 75 |

Forecast. *Status quo.*

assessment was not approved

**Remarks:** Data base revised in 1994, 1995 and 1998.

XSA SE .8; **1993**: taper 20, q plateau = 7, age <3 treated as recruit; **1994**: taper 10, q plateau = 8, none age treated as recruit; **1995**: taper 10, q plateau = 8, none age treated as recruit; **1996**: taper 10, q plateau = 8, none age treated as recruit; **1997**: taper 10, q plateau = 8, none age treated as recruit; **1998**: taper 10, q plateau = 8, none age treated as recruit; **1999**: taper 10, q plateau = 8, none age treated as recruit. **2000**: Taper (full range), q plateau = 8, age <3 treated as recruit. ; **2001**: Taper, q plateau = 8; none age treated as recruit. **2002**: Taper, q plateau = 8; none age treated as recruit