**Stock: *Sebastes mentella* in Sub-areas I and II**

**Assessment Quality Control Diagram 1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Average F(10-16,u) | | | | | | | | | | | | | | | |
| Date of assessment | Year | | | | | | | | | | | | | | |
|  | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | |
| 1989 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1990 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1991 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1992 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1994 | 0.17 | 0.20 | 0.29 | 0.33 | 0.11 | 0.08 |  |  |  |  |  |  |  |  |  | |
| 1995 | 0.18 | 0.20 | 0.24 | 0.29 | 0.12 | 0.07 | 0.09 |  |  |  |  |  |  |  |  | |
| 1996 | 0.19 | 0.20 | 0.24 | 0.30 | 0.12 | 0.10 | 0.10 | 0.08 |  |  |  |  |  |  |  | |
| 1997 | 0.19 | 0.20 | 0.24 | 0.29 | 0.12 | 0.10 | 0.10 | 0.09 | 0.04 |  |  |  |  |  |  | |
| 1998 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1999 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2002 |  |  |  | 0.34 | 0.14 | 0.14 | 0.18 | 0.17 | 0.09 | 0.10 | 0.16 | 0.20 | 0.15 | 0.22 |  | |
| 2003 |  |  |  | 0.37 | 0.16 | 0.16 | 0.20 | 0.20 | 0.11 | 0.13 | 0.20 | 0.26 | 0.21 | 0.39 | 0.13 | |

**Remarks:** No analytical assessment was conducted.

**Stock: *Sebastes mentella* in Sub-areas I and II**

**Assessment Quality Control Diagram 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Recruitment (age 6 ) Unit: millions | | | | | | | | | | | | | | | | |
| Date of assessment | Year class | | | | | | | | | | | | | | | |
|  | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | |
| 1989 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1990 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1991 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1992 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1994 | 170 | 133 | 58 | 32 | 26 | 45 |  |  |  |  |  |  |  |  |  |  | |
| 1995 | 157 | 138 | 114 | 98 | 94 | 111 | 132 |  |  |  |  |  |  |  |  |  | |
| 1996 | 177 | 125 | 78 | 54 | 61 | 90 | 192 | 110 |  |  |  |  |  |  |  |  | |
| 1997 | 116 | 104 | 73 | 63 | 68 | 114 | 189 | 125 | 126 |  |  |  |  |  |  |  | |
| 1998 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1999 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2002 |  |  |  | 26 | 30 | 49 | 84 | 107 | 119 | 71 | 32 | 32 | 51 | 43 |  |  | |
| 2003 |  |  |  | 24 | 26 | 41 | 70 | 84 | 86 | 62 | 37 | 35 | 42 | 29 | 11 |  | |
| 2004 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |

No analytical assessment was conducted.

**Remarks: The diff. between recruitment estimates in the 1995 and 1996 assess. caused predominantly by the change from stock dependent to stock independent tuning. The inclusion of two new tuning survey series in 1997 caused some of the differences between recruitment estimates in the 1996 and 1997 assessments. New and revised tuning series were used in 2002-2003.**

**Stock: *Sebastes mentella* in Sub-areas I and II**

**Assessment Quality Control Diagram 3**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Spawning stock biomass ('000 t) | | | | | | | | | | | | | | | | | |
| Date of assessment | Year | | | | | | | | | | | | | | | | |
|  | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | |
| 1990 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1991 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1992 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1994 | 64 | 80 | 70 | 52 | 83 | 82 | 85 | 87 |  |  |  |  |  |  |  |  |  | |
| 1995 | 71 | 97 | 76 | 64 | 93 | 87 | 89 | 96 | 100 |  |  |  |  |  |  |  |  | |
| 1996 | 67 | 81 | 73 | 59 | 91 | 79 | 73 | 79 | 86 | 88 |  |  |  |  |  |  |  | |
| 1997 | 68 | 82 | 74 | 59 | 90 | 73 | 62 | 79 | 85 | 94 | 104 |  |  |  |  |  |  | |
| 1998 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1999 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2002 |  |  | 88 | 63 | 65 | 53 | 43 | 63 | 58 | 67 | 81 | 126 | 99 |  |  |  |  | |
| 2003 |  |  | 108 | 80 | 64 | 48 | 33 | 43 | 46 | 49 | 42 | 46 | 66 | 36 |  |  |  | |

Forecast.

No analytical assessment was conducted.

**Remarks**