# Stock: Anchovy Sub-area VIII

**Assessment Quality Control Diagram 1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Average F(1-3,u) | | | | | | | | | | | | | | | | |
| Date of assessment | Year | | | | | | | | | | | | | | | |
|  | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | |
| 1989 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1990 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1991 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1992 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1994 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1995 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1996 | 1.014 | 0.990 | 0.993 | 1.992 | 1.343 | 0.926 | 0.901 | 0.825 |  |  |  |  |  |  |  |  | |
| 1997 | 0.554 | 0.678 | 0.610 | 1.449 | 0.892 | 0.585 | 0.643 | 0.738 | 0.855 |  |  |  |  |  |  |  | |
| 1998 | 0.541 | 0.617 | 0.629 | 1.299 | 0.891 | 0.574 | 0.679 | 0.862 | 1.172 | 0.414 |  |  |  |  |  |  | |
| 1999 | 0.501 | 0.581 | 0.615 | 1.258 | 0.863 | 0.565 | 0.679 | 0.861 | 1.238 | 0.486 | 0.251 |  |  |  |  |  | |
| 2000 | 0.589 | 0.527 | 1.048 | 0.8787 | 0.892 | 0.700 | 0.775 | 0.863 | 1.195 | 0.517 | 0.385 | 0.577 |  |  |  |  | |
| 2001 | 0.596 | 0.533 | 1.053 | 0.901 | 0.902 | 0.702 | 0.772 | 0.859 | 1.210 | 0.517 | 0.353 | 0.370 | 0.574 |  |  |  | |
| 2002 | 0.594 | 0.533 | 1.052 | 0.901 | 0.902 | 0.705 | 0.774 | 0.860 | 1.212 | 0.517 | 0.353 | 0.357 | 0.447 | 0.333 |  |  | |
| 2003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 2004 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |

**Remarks:** Assessments of 1996-1999 performed using ICA.

**Stock: Anchovy Sub-area VIII**

**Assessment Quality Control Diagram 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Recruitment (age 0) Unit: millions | | | | | | | | | | | | | | | |
| Date of assessment | Year class | | | | | | | | | | | | | | |
|  | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | |
| 1989 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1990 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1991 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1992 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1994 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1995 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1996 | 3310 | 21395 | 7272 | 27393 | 27677 | 15551 | 14273 | 14963 |  |  |  |  |  |  |  | |
| 1997 | 3641 | 21990 | 7506 | 28271 | 28003 | 14455 | 12335 | 14650 | 17065 |  |  |  |  |  |  | |
| 1998 | 4294 | 19052 | 7206 | 27767 | 25764 | 13877 | 10454 | 14051 | 210443 | 30950 |  |  |  |  |  | |
| 1999 | 4387 | 19082 | 7319 | 28402 | 25305 | 13334 | 10275 | 13397 | 20231 | 34647 | 2977 |  |  |  |  | |
| 2000 | 3473 | 19652 | 7587 | 27632 | 24103 | 12789 | 10405 | 14514 | 18197 | 25830 | 7841 | 12582 |  |  |  | |
| 2001 | 3461 | 19288 | 7456 | 27443 | 24011 | 12717 | 10405 | 14254 | 18262 | 28812 | 13387 | 18419 | 38397 |  |  | |
| 2002 | 3466 | 19308 | 7467 | 27378 | 23985 | 12681 | 10411 | 14232 | 18220 | 28780 | 14268 | 25530 | 32708 | 4356 |  | |
| 2003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |

**Remarks:** Assessments of 1996-1999 performed using ICA.

**Stock: Anchovy Sub-area VIII**

**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 | |
| 1989 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1990 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1991 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1992 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1994 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1995 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| 1996 | 16356 | 60886 | 29395 | 69621 | 93342 | 68487 | 55670 |  |  |  |  |  |  |  |  |  | |
| 1997 | 17782 | 63438 | 29569 | 71261 | 95497 | 65521 | 46671 | 47188 |  |  |  |  |  |  |  |  | |
| 1998 | 19112 | 55649 | 28391 | 69737 | 88690 | 60978 | 45126 | 40617 | 54783 |  |  |  |  |  |  |  | |
| 1999 | 23389 | 55844 | 28794 | 71236 | 87618 | 58755 | 43727 | 37098 | 49641 | 118593 |  |  |  |  |  |  | |
| 2000 | 21582 | 51966 | 31476 | 72975 | 81638 | 53953 | 43316 | 41558 | 46158 | 87436 | 51230 | (46750) |  |  |  |  | |
| 2001 | 21265 | 51031 | 30641 | 72241 | 81905 | 53638 | 43310 | 39816 | 46136 | 96063 | 74552 | 70323 | (95352) |  |  |  | |
| 2002 | 21306 | 51291 | 30791 | 72368 | 82507 | 53563 | 43363 | 40128 | 46182 | 96087 | 77885 | 97971 | 126033 |  |  |  | |
| 2003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |

**Remarks:** Assessments of 1996-1999 performed using ICA.