**Stock: Sole in Division VIId (Eastern English Channel)**

**Assessment Quality Control Diagram 1**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Average F(3-8,u) | | | | | | | | | | | | | | |
| Date of assessment | Year | | | | | | | | | | | | | |
|  | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| 1990 | 0.471 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1991 | 0.725 | 0.625 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | 0.572 | 0.425 | 0.553 |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | 0.634 | 0.466 | 0.560 | 0.559 |  |  |  |  |  |  |  |  |  |  |
| 1994 | 0.610 | 0.448 | 0.519 | 0.477 | 0.463 |  |  |  |  |  |  |  |  |  |
| 1995 | 0.587 | 0.420 | 0.465 | 0.399 | 0.351 | 0.423 |  |  |  |  |  |  |  |  |
| 1996 | 0.582 | 0.421 | 0.471 | 0.400 | 0.355 | 0.426 | 0.485 |  |  |  |  |  |  |  |
| 1997 | 0.526 | 0.368 | 0.400 | 0.327 | 0.281 | 0.326 | 0.361 | 0.475 |  |  |  |  |  |  |
| 1998 | 0.566 | 0.404 | 0.444 | 0.362 | 0.306 | 0.345 | 0.362 | 0.445 | 0.541 |  |  |  |  |
| 1999 | 0.559 | 0.394 | 0.429 | 0.355 | 0.300 | 0.345 | 0.360 | 0.442 | 0.560 | 0.435 |  |  |  |  |
| 2000 | 0.5543 | 0.3891 | 0.4239 | 0.3525 | 0.2976 | 0.3419 | 0.3533 | 0.4289 | 0.5296 | 0.3864 | 0.4271 |  |  |  |
| 2001 | 0.5583 | 0.3934 | 0.4279 | 0.3559 | 0.3011 | 0.3453 | 0.3567 | 0.4347 | 0.5453 | 0.4152 | 0.4629 | 0.3446 |  |  |
| 2002 | 0.5801 | 0.4138 | 0.4411 | 0.3672 | 0.3165 | 0.3623 | 0.3801 | 0.4777 | 0.6202 | 0.4747 | 0.5594 | 0.4530 | 0.3397 |  |
| 2003 | 0.5826 | 0.4160 | 0.4437 | 0.3688 | 0.3182 | 0.3639 | 0.3815 | 0.4794 | 0.2650 | 0.4875 | 0.5954 | 0.5013 | 0.4362 | 0.3394 |

**Remarks:** XSA used since 1993, previously Laurec/Shepherd.

**Stock: Sole in Division VIId (Eastern English Channel)**

**Assessment Quality Control Diagram 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Recruitment (age 1) Unit: thousands | | | | | | | | | | | | | | |
| Date of assessment | Year class | | | | | | | | | | | | | |
|  | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| 1990 | (17400) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1991 | 16873 | 16873 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | (20357) | 18206 | 18206 |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | 26318 | 12228 | 19800 | 19800 |  |  |  |  |  |  |  |  |  |  |
| 1994 | 26851 | 28132 | (12000) | (21000) |  |  |  |  |  |  |  |  |  |  |
| 1995 | 34175 | 29638 | 8592 | 35285 | (28178) | 21800 |  |  |  |  |  |  |  |  |
| 1996 | 34044 | 30790 | 13189 | 27387 | (41852) | 21800 | 21800 |  |  |  |  |  |  |  |
| 1997 | 36588 | 34308 | 15309 | 27916 | 24331 | (21971) | (28104) | 22000 |  |  |  |  |  |  |
| 1998 | 37057 | 35325 | 16987 | 28840 | 24562 | 19314 | (27071) | (22600) | (22600) |  |  |  |  |  |
| 1999 | 36814 | 34886 | 17318 | 28295 | 22186 | 21103 | 28577 | 22660 | 36943 | 22400 |  |  |  |  |
| 2000 | 36809 | 35731 | 17690 | 28968 | 22701 | 23526 | 35561 | 21330 | 39570 | 23362 | 23362 |  |  |  |
| 2001 | 36519 | 36098 | 17660 | 28363 | 21835 | 21223 | 35223 | 24216 | 40642 | 31277 | 23152 | 23152 |  |  |
| 2002 | 35909 | 35104 | 17275 | 27367 | 21096 | 21510 | 33786 | 19934 | 33349 | 56686 | 26084 | 23054 | 23054 |  |
| 2003 | 35860 | 35006 | 17403 | 27241 | 20649 | 20304 | 30059 | 18936 | 30633 | 38630 | 42190 | 40212 | 23267 | 23267 |

Geometric Mean.

RCT3.

**Stock: Sole in Division VIId (Eastern English Channel)**

**Assessment Quality Control Diagram 3**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Spawning stock biomass (tonnes) | | | | | | | | | | | | | | | | |
| Date of assessment | Year | | | | | | | | | | | | | | | |
|  | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| 1990 | 7944 | 7187 | 7455 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1991 | 6669 | 5258 | 5124 | 4919 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1992 | 8613 | 6460 | 6356 | 6093 | 5666 |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | 7903 | 6209 | 7093 | 7774 | 5981 | 5654 |  |  |  |  |  |  |  |  |  |  |
| 1994 | 8052 | 6522 | 8085 | 9561 | 9200 | 7500 | 7400 |  |  |  |  |  |  |  |  |  |
| 1995 | 8488 | 7107 | 9770 | 11263 | 11458 | 9478 | 10554 | 10800 |  |  |  |  |  |  |  |  |
| 1996 | 8440 | 7129 | 9698 | 11213 | 11336 | 9481 | 9543 | 10976 | 9762 |  |  |  |  |  |  |  |
| 1997 | 8792 | 7534 | 10272 | 11919 | 12222 | 10569 | 10307 | 10714 | 9900 | 9700 |  |  |  |  |  |  |
| 1998 | 8991 | 7612 | 10317 | 12252 | 13021 | 11827 | 12024 | 11593 | 9502 | 9681 | 9206 |  |  |  |  |
| 1999 | 8790 | 7664 | 10459 | 12411 | 13010 | 11866 | 11886 | 10781 | 9164 | 9854 | 9304 | 10802 |  |  |  |  |
| 2000 | 8891 | 7740 | 10540 | 12462 | 13113 | 12078 | 12163 | 11194 | 9906 | 11797 | 11283 | 12551 | 11436 |  |  |  |
| 2001 | 8810 | 7686 | 10422 | 12327 | 13044 | 12009 | 12019 | 10910 | 9286 | 11095 | 10271 | 12600 | 13100 | 12300 |  |  |
| 2002 | 9859 | 8890 | 11241 | 13274 | 13121 | 11208 | 12435 | 10505 | 8603 | 9636 | 9707 | 10472 | 14800 | 15100 | 15100 |  |
| 2003 | 9809 | 8846 | 11200 | 13214 | 13072 | 11162 | 12396 | 10379 | 8328 | 8851 | 8522 | 8884 | 11260 | 13300 | 15300 | 14700 |

**Remarks: SSB 2001, 2002 at SQ F**